

DOCUMENT RESUME

ED 026 507

VT 007 466

Manpower Research Projects Sponsored by the U.S. Department of Labor... Through June 30, 1968.

Manpower Administration (DOL), Washington, D.C.

Pub Date Oct 68

Note-223p.

EDRS Price MF-\$1.00 HC-\$11.25

Descriptors-*Abstracts, *Annotated Bibliographies, *Federal Programs, Grants, *Manpower Development, *Research Projects, Research Proposals

Identifiers-Economic Opportunity Act Title I Research Projects, EOA Title I Research Projects, Manpower Development and Training Act Title I, MDTA Title I Research Projects

This catalog describes the status and content of research programs which were either developed or administered by the Office of Manpower Research under Title I of the Manpower Development and Training Act (MDTA) or the Economic Opportunity Act for the fiscal year ending June 1968. Brief summaries are given for 71 active MDTA research contracts, seven active institutional grants, 78 active doctoral dissertation grants, 41 active research project grants, and 16 active Bureau of Work-Training Programs. Abstracts are given for 22 completed MDTA research contracts, 15 completed dissertation grants, and 13 completed research project grants. A list of reports completed for fiscal years 1963 to 1968 are also included. Proposal guidelines for each of the categories of grants or contracts are given. The appendixes include Title I of MDTA, an index of contractor and grantee organizations, an index to individuals associated with the contracts and grants and a subject index. (EM)

ED0 26507

21

MANPOWER RESEARCH PROJECTS

SPONSORED BY THE
U.S. DEPARTMENT OF LABOR,
MANPOWER ADMINISTRATION

Through
June 30, 1968

VT007466

U.S. DEPARTMENT OF LABOR
Manpower Administration

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

MANPOWER RESEARCH PROJECTS

SPONSORED BY THE
U.S. DEPARTMENT OF LABOR,
MANPOWER ADMINISTRATION

Through
June 30, 1968.

October 1968

U.S. DEPARTMENT OF LABOR
Willard Wirtz, Secretary
MANPOWER ADMINISTRATION
Stanley H. Ruttenberg, Manpower Administrator

CONTENTS

	Page
INTRODUCTION.....	1
1. PROJECTS ACTIVE ON JUNE 30, 1968.....	3
1.1 Research Contracts under the Manpower Development and Training Act (MDTA).....	5
1.2 Manpower Research Institutional Grants under the MDTA....	37
1.3 Doctoral Dissertation Grants under the MDTA.....	43
1.4 Research Project Grants under the MDTA.....	69
1.5 Research Contracts for the Bureau of Work-Training Programs (BWTP).....	83
2. PROJECTS COMPLETED, JULY 1, 1967-JUNE 30, 1968.....	89
2.1 Research Contracts under the MDTA.....	91
2.2 Doctoral Dissertation Grants under the MDTA.....	103
2.3 Research Project Grants under the MDTA.....	113
3. LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68...	121
3.1 Contracts.....	122
3.2 Grants.....	136
4. GUIDELINES FOR SUBMISSION OF RESEARCH PROPOSALS..	147
4.1 Research or Evaluation Contracts.....	149
4.2 Doctoral Dissertation Grants under the MDTA.....	155
4.3 Research Project Grants under the MDTA.....	165

	Page
APPENDIX A. Subcommittee on Research of the National Manpower	
Advisory Committee.....	179
APPENDIX B. Manpower Development and Training Act of 1962, Title	
I, as Amended.....	183
INDEXES.....	189
A. Contractor and Grantee Organizations and Institutions.....	191
B. Individuals Associated with Contracts or Grants.....	197
C. Research Subjects.....	203

INTRODUCTION

Fiscal year 1968 marked the sixth year of the research program established under title I of the Manpower Development and Training Act (MDTA) to guide and help perfect programs for better utilization of the country's manpower resources. In the past 2 years, this research has been supplemented by a program of studies under the Economic Opportunity Act to support the Department of Labor's Bureau of Work-Training Programs (BWTP). Both of these research programs have been developed and are administered by the Office of Manpower Research in the Manpower Administration, under the leadership of the Associate Manpower Administrator. This catalog describes the content and status of these programs on June 30, 1968.

The research programs use the social sciences to discover better ways of solving manpower problems and to fill gaps in the knowledge needed for informed social action. Consequently, the content of the research program is sensitive to the emergence of new manpower problems and to shifts in emphasis in manpower programs. The increased attention to the employment problems of the disadvantaged, particularly since the advent of the work and training programs under the Economic Opportunity Act, is illustrative.

Individual research projects are conducted, through a system of contracts and grants, by investigators representing the major social science disciplines—sociology, economics, industrial relations, psychology, political science, and anthropology—as well as the fields of business administration, engineering, and education. Most of the researchers are affiliated with universities; the remainder work for other government agencies or private research organizations.

The more extensive research projects under MDTA and all projects for BWTP are conducted under contracts. MDTA research grants support three types of projects: (1) Institutional grants to develop new manpower research talent and long-term programs of research on local and regional manpower problems; (2) small grants to doctoral candidates to support research for dissertations in the manpower field; and (3) small research grants to postdoctoral scholars for innovative studies and the development of research designs for major studies of manpower problems.

Projects in progress at the end of fiscal year 1968 under all of these programs are described in section 1 of this publication. Information is included on projects carried over from earlier years, including the seven institutional grants, and on the 33 MDTA contracts, six BWTP contracts, 43 dissertation grants, and 19 research project grants which were newly funded during the year.

Introduction

Brief summaries of research completed during fiscal 1968 comprise section 2, and a cumulative list of reports completed since the inception of the MDTA research program is given in section 3.

Finally, section 4 presents guidelines for the submission of research proposals to the Manpower Administration. It is included in the hope that social scientists will want to add to the significant contributions recorded in the previous sections of this catalog.

1. PROJECTS ACTIVE ON JUNE 30, 1968

This section outlines the objectives and procedures of projects on which research was in progress at the end of fiscal year 1968.

1.1 PROJECTS ACTIVE ON JUNE 30, 1968—Research Contracts under the Manpower Development and Training Act (MTDA)¹

1.1.01 ASSOCIATION FOR THE HELP OF RETARDED CHILDREN NEW YORK, N.Y.

CONTRACT NO. 81-31-21

Principal Staff: Ida Alpert, Jack Tobias, and Dr. Jacob Cohen, New York City Chapter.

Project Title: The Employment of New York City's Mentally Retarded Adults

Objectives and Procedures: This study will determine the current employment status of mentally retarded adults in New York City and develop information to enhance their future success in finding jobs. Specifically, the study will involve investigation of: (1) The current employment status of young adults who had been classified as retarded during their school years; (2) the employment patterns of retarded workers in terms of stability of employment, job categories, earnings, and methods of placement; and (3) the extent to which retarded persons utilize public and voluntary agencies in their efforts to find employment.

The study will survey 500 persons who have completed special education classes in the city. One-half of the group has been out of school for 2 years and the other half for 5 years. School records are to be examined, home interviews held with each subject, and psychological evaluations made of selected subgroups.

Status of Project: Completion is scheduled for fiscal year 1969.

Preliminary Highlights of Findings: The first phase of this project involved a census of all identified mentally retarded youth who left school in New York City in 1960 and 1963. Preliminary data from the school records of these individuals indicate the following: (1) It appears likely that a large percentage of retarded children are not so identified during their school years and many children with identified IQ's equivalent to those in special classes for the retarded are permitted to remain in regular classes; (2) teachers' identifications of retarded students are based on social as well as intellectual factors. It appears that teachers interpret certain correlates of low socioeconomic status, such as weakness in verbal comprehension, as symptoms of retardation. This interpretation

¹ Requests for information concerning these contracts should be directed to the principal staff.

may account for the fact that Puerto Rican children were found in classes for the retarded about twice as often as normally expected.

1.1.02 ATLANTIC RESEARCH CORP. ALEXANDRIA, VA.

CONTRACT NO. 81-49-68-19

Principal Staff: Dr. Hans W. Weigert, Dr. John Wallerstedt, and Col. Walter R. Lawson, USA (Ret.).

Project Title: An Analysis of Post-World War II Manpower Research, Policy and Program Experience Applicable to Peacetime Conversion of Military Manpower

Objectives and Procedures: This project intends to develop recommendations for manpower policies and programs which would facilitate the transition of military manpower to a peacetime economy following the cessation of Vietnam hostilities. The project will consist of: (1) A comprehensive synthesis and evaluation of Government and privately sponsored research completed since the end of World War II and concerned with the civilian employment experience of former servicemen and with the extent to which the skills and training obtained in the armed services proved transferable to the civilian job market; and (2) an assessment of major public and private programs created since the end of World War II to facilitate this transfer of military manpower.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.03 BATTELLE MEMORIAL INSTITUTE COLUMBUS, OHIO

CONTRACT NO. 81-37-68-40²

Principal Staff: Joseph W. Duncan, David Sweet, and John Coffey.

Project Title: An Exploratory Study to Analyze New Skill Content in Selected Occupations in Michigan and Its Translation Into Vocational Education Curriculums

² This study is cosponsored by the Office of Education of the U.S. Department of Health, Education, and Welfare; the Michigan Employment and Security Commission; and the Michigan Department of Education.

Objectives and Procedures: This study intends to make curriculum planning for vocational education more responsive to changing job skill requirements, and to improve the mechanism by which such changes are detected and translated into vocational school curriculums.

The following information will be obtained in three Michigan communities: (1) A broad spectrum of current and prospective job content and skill requirements for 10 occupations; and (2) descriptions of curriculums designed to meet the requirements of the occupations studied. Procedures include identifying areas where curriculum change information is needed to meet job skill demands, developing such information, making recommendations to appropriate local officials, helping to achieve such changes, and finally analyzing results achieved.

Status of Project: Completion is scheduled for fiscal year 1970.

1.1.04 BUREAU OF SOCIAL SCIENCE RESEARCH, INC.
WASHINGTON, D.C.

CONTRACT NO. 81-09-66-27

Principal Staff: Mrs. Laure M. Sharp.

Project Title: Occupational Adjustment of Recent Low-Income Southern In-migrants to Cleveland

Objectives and Procedures: This three-phase project concerns the occupational adjustment in Cleveland of low-income Southern in-migrants with less than 2 years of residence or 2 to 5 years of residence. Phase I consists of a baseline study in which data obtained from personal interviews with the newcomers are being compared to the experience of persons who have lived in Cleveland more than 10 years.

Phase II is an experimental project in which newcomers identified from phase I are provided with special services, including counseling and a prevocational skills training program designed to facilitate job readiness and employment. The employment experience of individuals receiving the special services will be compared with a matched group of newcomers not receiving such aid.

The third and final phase of the project will consist of a followup assessment of the occupational adjustment of study participants.

Status of Project: The data collected during phase I

are currently being analyzed. The prevocational training program of phase II terminated in late summer 1968. A final report covering both phases I and II is expected in fiscal year 1969. Preliminary work on phase III of the project is expected to begin in fiscal year 1969.

1.1.05 UNIVERSITY OF CALIFORNIA, BERKELEY
BERKELEY, CALIF.

CONTRACT NO. 81-05-66-30

Principal Staff: Dr. E. R. F. W. Crossman and Dr. Stephen Laner, Institute of Engineering Research and Institute of Industrial Relations.

Project Title: An Evaluation of the Skill Demands of Manufacturing and Service Processes at Various Levels of Technology

Objectives and Procedures: This study will supplement the data acquired in the contractors' previous study, "Evaluation of Changes in Skill-Profile and Job Content Due to Technological Change: Methodology and Pilot Results from the Banking, Steel, and Aerospace Industries" (see 3.1.07).

Both projects aim to improve understanding of changes in the structure of the work force due to advancing technology. To do this, they investigated changes in the distribution of skill levels in the manufacturing and service work force and related them to technological change.

Using a technique tested in the researchers' pilot study, the staff studied further industries with reference to direct (production) labor and supervision in maintenance, planning, scheduling, quality control, and junior management. Analysis of the relationship between human and machine functions, together with a study of industrywide statistical data, has guided the selection of representative case material.

Status of Project: Completion of the project is scheduled for fiscal year 1969.

1.1.06 UNIVERSITY OF CALIFORNIA, BERKELEY
BERKELEY, CALIF.

CONTRACT NO. 81-05-67-24

Principal Staff: Dr. Lloyd Ulman, Dr. Margaret S. Gordon, and Dr. Harold L. Wilensky, Institute of Industrial Relations.

Project Title: A Study of Employer Policies in a Large Metropolitan Labor Market Area

Objectives and Procedures: The Institute of Industrial Relations is engaged in a 5-year program of research on the conditions of entry and related determinants of labor supply and demand in a number of geographically restricted job markets. As part of this program, the present study is concerned with updating the current body of knowledge on employer policies and practices, the bulk of which was accumulated in the late 1940's and early 1950's. The research team is analyzing employer policies in light of the many significant changes that have occurred in job market institutions and conditions over the last 15 to 20 years. Particular attention is being devoted to: (1) Description (including, whenever possible, quantitative material) and analysis of employer recruitment, hiring, selection, training, compensation, promotion, and retirement policies; (2) interrelationships among such policies; (3) variables determining the choice or sequence of policies, including changes in job market conditions as well as the occupational, educational, demographic, or institutional distinctions of the various markets sampled; and (4) the impact of the policies themselves upon the employment opportunities of various groups of workers.

A sample survey, stratified by industry, was conducted among 300 firms with 100 or more employees in the San Francisco Bay area. Data were collected during extensive interviews with appropriate firm representatives and will be analyzed in terms of: Type of firm; location, plant capacity, and government contracts; employment data; labor turnover; industrial relations; recruitment; hiring policies; promotion; wages; training; technological innovations; and techniques of projecting future personnel needs.

Status of Project: Interviews have been completed, and a final report is expected in fiscal year 1969.

**1.1.07 UNIVERSITY OF CALIFORNIA,
BERKELEY
BERKELEY, CALIF.**

CONTRACT NO. 81-05-68-43

Principal Staff: Dr. Lloyd Ulman, Dr. Margaret S. Gordon, and Dr. Margaret Thal-Larsen, Institute of Industrial Relations.

Project Title: A Study of Employment Agencies and School Placement Services in a Large Metropolitan Labor Market Area

Objectives and Procedures: This study is concerned with the following problems: (1) The impact on the relative roles and effectiveness of public and private employment agencies and placement services of increased national emphasis on manpower programs; (2) the nature of the relationships between employment agencies and educational institutions, with particular reference to the development, transmission, and use of information on occupational changes and the planning of vocational education and training programs; and (3) the impact of industrial decentralization in metropolitan areas on placement by employment agencies of central city jobseekers in firms located some distance outside the central city, and vice versa.

Data will be collected by questionnaires sent to the public employment service, private placement services of various types, and counselors in secondary schools and junior colleges in the San Francisco Bay area. Factors influencing the effectiveness of placement and counseling services will be discerned, and inferences will be made regarding the steps necessary to bring all employment offices up to the level of those providing the best services.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.1.08 UNIVERSITY OF CALIFORNIA, LOS
ANGELES
LOS ANGELES, CALIF.**

CONTRACT NO. 81-04-36

Principal Staff: Dr. Paul Prasow, Institute of Industrial Relations.

Project Title: Automated and Nonautomated Jobs in the Los Angeles Aircraft Industry

Objectives and Procedures: This longitudinal study is evaluating the entrance requirements and selection policies of management in the Los Angeles aircraft industry in regard to automated and nonautomated jobs. It is investigating how the workers regard: (1) Job requirements and job content; (2) sources of work satisfaction; and (3) differences in interpersonal relations involving fellow workers and supervisors as they exist in automated and nonautomated jobs.

Data are being collected in open-ended interviews with individuals in automated and nonautomated jobs, their supervisors, and top-level managerial and staff personnel concerned with automation and technological change.

Status of Project: The study is scheduled for completion in fiscal year 1969.

1.1.09 BUREAU OF THE CENSUS
U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C.

CONTRACT NO. MDTA 27-64

Principal Staff: Stanley Greene.

Project Title: Tabulations on the Relationship Between Patterns of Child-Bearing and Labor Force Participation of Women

Objectives and Procedures: Data from special tabulations based on the 1960 census will be analyzed to provide new information on factors which influence the participation of married women in the labor force. Among these factors are the number of children and their ages, and the length of time women have been married.

For the first time, data will be available on the labor force status of women immediately subsequent to the birth of their first child. In addition, detailed data will now be available relating size of family as well as family formation patterns to the husband's income. These data should provide new insights into the labor force participation of women in different socioeconomic situations.

Status of Project: This report has gone to press and will be available in fiscal year 1969. (See 3.1.11.)

1.1.10 BUREAU OF THE CENSUS
U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C.

CONTRACT NO. 81-09-67-17

Principal Staff: Samuel Baum.

Project Title: Occupational Classification Study

Objectives and Procedures: The objectives of this study are: (1) To provide national figures on the size and characteristics of occupational groups in the new

Dictionary of Occupational Titles (DOT); (2) to provide data for use in preparing the Census Bureau's proposed DOT Occupational Classification Convertibility List; and (3) to provide the basis for the preparation of a Standard Occupational Classification for use throughout government.

Entries from the job content sections (Industry, Occupation, and Class of Workers) of one month's *Current Population Survey* (CPS) are being transcribed and coded to the DOT. The information is being merged with CPS information, tabulations are being run comparing census occupations with DOT, and the results will be presented by DOT classification.

This project, which was planned by the Subcommittee on Research of the Budget Bureau's Occupational Classification Committee, is also supported by contributions of the Census Bureau and the Bureau of Employment Security.

Status of Project: A final report is expected during fiscal year 1969.

1.1.11 BUREAU OF THE CENSUS
U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C.

CONTRACT NO. 81-09-68-46³

Principal Staff: David P. McNelis.

Project Title: Occupational Survey of State and Local Government Employment

Objectives and Procedures: This study will provide detailed occupational data by government function for employees of State and local governments. A national occupational survey of State and local government employees (excluding those in educational agencies) will be conducted. The project will take place in two phases: (1) A planning and developmental phase; and (2) the actual conduct of the full-scale survey.

In the planning phase, officials in approximately 100 State and local governments, representing a cross-section of size groupings, will be contacted for: (1) The numbers of employees on the payroll by occupation; (2) the number of budgeted jobs by occupation; and (3) the names and addresses of a sample of their employees. The final version of the survey questionnaire will be pretested on a sample of the employee

³This is a multiagency project involving the Departments of Labor and of Housing and Urban Development, the Civil Service Commission, and the Census Bureau.

names provided and will seek data relative to age, sex, type of position, rate of pay, specialized training, and job mobility. Mail, field, and telephone followups will be conducted. This initial field survey will provide planning and feasibility information as a basis for conduct of the national survey.

Status of Project: Completion of initial phase is scheduled for fiscal year 1969.

1.1.12 COLUMBIA UNIVERSITY NEW YORK, N.Y.

CONTRACT NO. 81-34-67-25

Principal Staff: Dr. Eli Ginzberg, Conservation of Human Resources.

Project Title: Employment Expansion in a Dynamic Economy

Objectives and Procedures: The primary objective of this ongoing interdisciplinary research effort has been to probe more deeply into the changing structure and functioning of the American economy to delineate the different ways in which the development and utilization of America's human resources help determine the level of economic output and social well-being. The following investigations have recently been completed and the results are in the process of being published:

1. "Allied Health Manpower: Trends and Prospects." This is the first comprehensive study of the 2 million persons with less than a college degree who comprise the major source of manpower for the rapidly expanding health services industry. The analysis includes demographic, educational and training, and job market characteristics of this labor force.

2. "Programs for the Hard-to-Employ: European Experience." This study describes and analyzes the ways in which eight countries in Western Europe have sought to assist in enhancing the employability of handicapped persons through quota legislation, subsidies, and job creation outside the competitive market and through measures aimed at preventing the dismissal of vulnerable workers.

3. "The Process of Work Establishment." This is a case study analysis of the strategic determinants in the career choices and patterns of young men as they leave high school. The study investigated the manner in which individuals with modest education adapted to a changing work environment. The data were gathered from the personnel records of young workers in five firms in a large Northeastern labor area—two public

utilities, an auto assembly plant, and two large metropolitan department stores. Particular emphasis was given to the impact of differing types of business establishments and personnel policies on the success or lack of success of these individuals.

4. "Patterns of Employment Expansion in the American Economy." This study was based on material from the Bureau of the Census. It examines the ways and extent to which regions and localities have adapted to shifts in the economic structure, including job creation and job destruction, over the past 2 decades. The study covers 32 industry groups classified by region and size of place.

5. "The Peripheral Worker." This study analyzes the 40 to 45 percent of all persons with work experience during the year who were employed less than full time or less than the full year. Most of these workers are found in four groups: Women, youth, older persons, and members of minority groups. The analysis was carried out along historical, sociological, and economic lines. While the contemporary economy has need for less than full-time workers, and many persons in the labor force desire less than full-time work, the study concludes that public policy should recognize and deal with problems associated with this labor force component, including the lack of social welfare measures available to many workers.

6. "The Role of State Development Commissions in a Pluralistic Economy." Against the background of the theories of regional economic growth, this study examines the potentialities and limitations of State development commissions in their efforts to expand and promote economic development. This examination emphasized and evaluated the effectiveness of two basically different approaches in this area—planning and promotional activities. The investigation covered the historical development of State activities and developed a theory of State economic development programs which would enhance utilization of State resources.

The following projects will be completed during fiscal year 1969:

1. "Manpower, Money, and Medicine." This is a collection of 20 essays written during the past few years dealing with the following critical health occupations: Physicians, psychiatrists, obstetricians, nurses, public health workers, medical technicians, and other categories of health manpower. These are analyzed in terms of the ways in which such workers are educated, trained, and utilized. Special efforts are made to relate the operations of health services to the larger job market and to delineate this interdependence.

2. "The Transition From School to Work: A Comparison of the U.S.A. and Europe." Four European countries (France, the Netherlands, Sweden, and Great Britain) have been chosen for study because each has one or more of the special circumstances which are characteristic of the situation facing American youth in the transition from school to work. Data to be assembled include population trends, labor force participation rates, school attendance trends, employment patterns (including apprenticeship and training), unemployment rates, wage differentials, and minimum wage regulations. The addition of qualitative materials on job changing, school-work programs, housing provisions for young workers, special problems of minorities, guidance facilities, etc., will be directed toward determining whether the United States can benefit from lessons in the experience of European countries which thus far have not had serious youth employment problems.

3. "Employment Expansion and Metropolitan Trade." This study provides a subnational analysis of the dynamics of employment expansion. The study focuses on the sources of employment expansion in metropolitan job markets derived from exports, import substitutions, and increased local demand for goods and services. It analyzes changes in the industrial mix of imports and exports and the associated changing relationships between employment in the exporting sector and in locally oriented industries.

Work will continue on the following projects:

1. "The Theory of Manpower." This study is structuring an institutional theory of the longrun supply of labor in which primary emphasis is placed on the development of human resources and secondary emphasis on manpower utilization. The principal dimensions of the theory have been worked out in terms of four variables: (1) The value structure of the society; (2) the political institutions; (3) the economic organization; and (4) the level of competence of the human resources. The components of each of these variables have been tentatively developed. For instance, the value structure of a society is considered a function of four major subsets: The desire for material improvement in living standards; the stage of development of nationhood; the role of economic activity in the society's behavioral context; and the importance ascribed to human life and well-being.

A set of equations has been developed to facilitate the development of a dynamic theory of manpower. However, consideration of the varieties of institutions

will lead to a nonmathematical method of exposition as well.

2. "Portals to Work: The Opportunity Matrix." This study seeks to specify the nature and extent of employment opportunities within a general model of the present-day occupational structure. Particular attention is being paid to differences and changing trends in organizational patterns and managerial styles, as they affect new workers seeking jobs and the new jobs that will be available.

3. "Aging in the Harlem Ghetto: Withdrawal From the Labor Force." Through intensive analytical techniques, this study probes the ways in which the processes of aging—the multiplication of health defects, the difficulties of access to job market information, the impediments to access to social services—are inter-related. It also examines how these processes contribute to loosening ties with the world of work for minority group members to a point where they drop out of the labor force.

4. "Manpower Planning and Technological Change in the Steel Industry." This study focuses on the collection and analysis of case materials relating to the introduction of new technology in the steel industry over the last 15 years and the ways in which manpower requirements are forecast, planned for, and implemented. Emphasis is placed on the acquisition of new skills and competence of executive, professional, and technical personnel and skilled workers in the transition to new production methods.

5. "Utilization of Allied Health Manpower." This study builds on the published studies which point up the wide, and as yet unexplained, variations in staffing patterns at major health institutions. The present study attempts to assess the role of the following factors in health manpower utilization: Region, type of facility, size of facility, wage levels, administrative structure, unionization, utilization of allied health manpower, and utilization of equipment. Ratios of health manpower input to various output indices by major divisions within the facilities—medical, surgical, and pediatric—and by major functions—nursing, administration, housekeeping—are being calculated and compared. Recommendations for improved efficiency in health manpower utilization will be offered.

6. "The Role of Manpower in Employment Expansion." This study builds on *Patterns of Employment Expansion in the American Economy* and probes more deeply into the dynamics of the processes analyzed. Efforts are being made to identify: (1) How variations in the quality and quantity of the available labor supply

played a strategic part in the employment expansion of various types of metropolitan centers; and (2) how the absence of certain skills and competencies retarded the economic growth of particular communities.

Status of Projects: As indicated in the listings of the individual studies, six of the studies are now in the process of being published, and three others are scheduled for completion during fiscal year 1969.

Preliminary Highlights of Findings:

1. "Allied Health Manpower: Trends and Prospects." This report emphasizes the need for a substantial expansion of public support for broadening the educational and training facilities involved in the development of health manpower. It also highlights a need for improved patterns of utilization, including career ladders and postemployment training and education so that workers can be attracted to and retained in the health services industry. Without improved manpower policies and programs aimed at this worker group, there is little or no prospect of increasing the quantity and quality of health services available to the American people, the report concludes.

2. "Programs for the Hard-to-Employ: European Experience." This report contends that the United States should, as a matter of course, seek to remain abreast of developments in other industrialized countries in order to profit from their successes and failures. The European experience points up the need for the Nation to consider more carefully how to ease the migration of rural population into urban centers; establishment of special devices to help keep disadvantaged workers in employment; the potentialities of governmental action to subsidize employment for the severely disadvantaged; and new approaches to encouraging industry to locate in depressed areas.

3. "The Process of Work Establishment." This report emphasizes the critical importance of providing more young people from disadvantaged groups with the opportunity to be hired by employers who make opportunities available for their workers' advancement through experience and on-the-job training. The report concludes that the successful adjustment by minority group members to the economy and society hinges heavily on their having employment opportunities with career development possibilities.

The findings indicate that within a wide middle range of talent, workers with different backgrounds are capable of meeting minimum standards of performance. Once employed, they receive rewards based on

length of service rather than on gradations of worker quality. These rewards may include purely nominal forms of upgrading, as well as more conventionally defined promotional opportunities. The industry, the scope of the internal job market, and the nature of personnel policies exert major influences on the probability of the individual's success.

4. "Patterns of Employment Expansion in the American Economy." This report indicates that national economic and manpower policies will have a differential effect on employment in various cities. From a national point of view, the report discerns that much better coordination is needed between national and subnational agencies before desirable public goals affecting economic and employment objectives can be realized. The findings point to the critical role of the size of the job market, and to the differential growth resulting from the functions performed in different types of metropolitan economies.

5. "The Peripheral Worker." This report calls attention to the need for public policies aimed at providing, in accordance with the Employment Act of 1946, opportunities for employment for all persons able and willing to work, because many persons are presently unable to find full-time employment although they want and need it. The study also highlights the need to review social security and related legislation to see whether changes should be made, and if so, what type of changes could be made to assure that many workers not fully employed have the opportunity to be brought within the protection of such legislation.

6. "The Role of State Development Commissions in a Pluralistic Economy." This report stresses the lack of effectiveness of most existing State development commissions, but points out how, under strong State leadership, the commissions can and should be reorganized, staffed, and financed. Thus improved, these commissions may play a critically important role as the principal State planning agencies directing encouragement of economic growth and provision for an expansion of employment, particularly in high wage sectors of the economy. The monograph also emphasizes the severe limitations of many present measures, such as tax-free bonds for stimulating industrial development. The findings highlight the need to stress the planning function, which would provide criteria for assessing the desirable level and alternative investment of State funds in highways, education, and other social functions, and would assure optimal economic development and employment expansion.

1.1.13 COLUMBIA UNIVERSITY NEW YORK, N.Y.

CONTRACT NO. 81-34-68-44

Principal Staff: Dr. Eli Ginzberg, Conservation of Human Resources.

Project Title: Negro Youth: Pathways Into Work

Objectives and Procedures: This study consists of two parts, to be conducted simultaneously:

1. The researchers will analyze a wide range of published and unpublished data for selected urban communities. They will identify factors related to differences in degrees of success achieved by Negro youth in entering the world of work, and determine what contributes to greater success in one community than in another. Measures will be constructed for each community to reflect pertinent segments of the demand for labor (including such factors as wage rates) and the educational levels of Negro youth. Data will be drawn from such sources as the U.S. Office of Education, Census Bureau, Bureau of Labor Statistics, Department of Defense, and local schools.

2. This study will attempt to clarify the interaction of personal and societal factors influencing the job market experiences of Negro youth. Personal interviews will be conducted with 120 Negroes, age 18 to 24, who are neither full-time students, employed full time, nor members of the Armed Forces. Data will be obtained on their work histories, educational attainment, work expectations, sources of income, and living arrangements.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.14 CORNELL UNIVERSITY ITHACA, N.Y.

CONTRACT NO. 81-34-68-39

Principal Staff: Dr. William F. Whyte, Dr. David Rogers, and Dr. Jay Schulman, New York State School of Industrial and Labor Relations.

Project Title: Exploratory Study of Interorganizational Relationships of Inner-City Manpower Programs

Objectives and Procedures: This study will: (1) Assess the current state of knowledge of organizational concepts and theories to improve understanding of the problems involved in relationships among or-

ganizational units and indicate the most promising directions for theoretical development; and (2) make a field diagnosis of major problems in the relationships of certain of the agencies involved in urban development and manpower programs in each of several large cities.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.15 DEPARTMENT OF DEFENSE WASHINGTON, D.C.

CONTRACT NO. 81-09-67-20

Principal Staff: Roger F. Riefler.

Project Title: Economic Impact of Defense Programs

Objectives and Procedures: In this project, the Manpower Administration and the Department of Defense are examining the feasibility of introducing certain information changes in the format of DOD's semiannual survey, "Economic Impact of Defense Programs." The proposed changes concern improvements in survey data describing the impact of defense spending on employment at the State and local area level, by industry, occupation, and demographic characteristics.

Information resulting from this examination is expected to provide the Department of Labor with an improved basis for making manpower readjustments in the event of major changes in the levels and patterns of defense expenditures. Project information should also contribute to the development of an "early warning system" that would permit early Departmental assistance in areas seriously affected by defense cutbacks.

Status of Project: A final report is due during fiscal year 1969.

1.1.16 BUREAU OF EMPLOYMENT SECURITY U.S. DEPARTMENT OF LABOR WASHINGTON, D.C.

CONTRACT NO. 81-53-67-04

Principal Staff: Harold Kuptzin and Tom Ritter.

Project Title: Development of a Model System of Occupational and Employment Information Under the Vocational Education Act of 1963

Objectives and Procedures: This pilot project intends to develop a model information system for occupational and employment data. The model will implement the Vocational Education Act of 1963 and related manpower development and training programs by enabling them to be more responsive to current and prospective job market requirements. Units of the Wisconsin State Employment Service and personnel of the national office of the Bureau of Employment Security will execute the study, working in cooperation with representatives of national, State, and local vocational education agencies.

The model being developed will provide inputs on various aspects of occupational and employment information, as well as labor demand for particular occupational groups in Milwaukee. These elements are being related to the basic factors affecting vocational education in the area and are being used to evaluate vocational education program goals so that curriculums can be made consistent with employment opportunities and job characteristics. Particular effort is being made to develop techniques and procedures for the effective exchange of information between the Employment Service and vocational education authorities at all levels of government.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.17 UNIVERSITY OF FLORIDA GAINESVILLE, FLA.

CONTRACT NO. 81-10-68-34

Principal Staff: Dr. D. L. Brooke, Institute of Food and Agricultural Sciences.

Project Title: The Impact of Mechanical Harvesting on the Demand for Labor in the Florida Citrus Industry

Objectives and Procedures: This project will estimate the rate at which capital equipment may be substituted for labor under various mechanical harvesting systems used in the Florida citrus industry. The impact of mechanical harvesting on the demand for different skill levels of labor will be estimated in terms of wage rates and capital costs, based on fluctuating citrus prices. The study will also explore the possibilities of off-season employment for the Florida citrus workers.

Status of Project: Completion is scheduled for fiscal year 1970.

1.1.18 GREENLEIGH ASSOCIATES, INC. NEW YORK, N.Y.

CONTRACT NO. 81-34-68-27

Principal Staff: Dr. Hazel McCalley and Dr. Clara Friedman.

Project Title: A Study to Develop a Model to Assure That the Handicapped are Brought Into the Labor Market to the Extent Feasible

Objectives and Procedures: This study is aimed at developing information on the number of handicapped workers who could be: (1) Employed immediately; (2) provided meaningful and economically sustaining work through sheltered workshops; or (3) receive wage subsidization within a sheltered workshop while contributing to the economy within their capabilities. The study will also develop a model for the delivery of employment services to the handicapped. The model will include identification of the interagency linkages necessary to produce the most efficient and comprehensive delivery system of employment services.

Information on characteristics of the handicapped will be drawn largely from National Health Survey data and from other national or State surveys. Information will be considered in terms of such categories as the blind, physically handicapped (other than blind), mentally retarded, mentally ill, alcoholic, etc.

Based on the characteristics of the handicapped, the model for delivery of employment services will include:

1. A descriptive, analytic study of handicapped persons.
2. Agencies which should be responsible for the various kinds of employment services, and a system of linkages among them.
3. A system of sheltered workshops, or other institutional arrangements, for those who cannot function in business or industry.
4. A plan for subsidizing certain handicapped workers. The data classification system and the model will be tested against the actual situation in four geographically dispersed communities with different population mixes.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.19 HARVARD UNIVERSITY CAMBRIDGE, MASS.

CONTRACT NO. 81-23-66-22

Principal Staff: Dr. John T. Dunlop and Dr. Peter B. Doeringer, Department of Economics.

Project Title: Internal Adjustments in the Manufacturing Sector to Tightening Labor Markets and Skill Shortages

Objectives and Procedures: This study intends to offer guidance in the development of more effective national manpower policies and programs, and to improve coordination of private and public efforts to alleviate serious unemployment and underemployment. The study will identify and analyze the operation of the internal job markets in the manufacturing sector, taking into account blue-collar skill scarcities, employment of the disadvantaged, technological change, and manpower forecasts.

Data will be collected in interviews with management personnel and union representatives, where appropriate, in 20 manufacturing industries characterized by expanding employment opportunities. Interviews will focus on the effectiveness over time of the policies, programs, and procedures adopted by the employers to meet labor shortages in their production and maintenance jobs.

At eight plants, interviews will also be conducted with personnel executives, industrial engineers, in-plant equipment designers, and selected lower level management personnel to measure the internal impact of the approaches used in adjusting to changing labor supply conditions. These additional interviews will collect quantitative data which reflect the effects of a transition from a loose to a tight labor supply on such variables as total employment, number of job classifications and incumbents, number and descriptions of jobs redesigned, compensation, training, hours of work, and promotion opportunities.

In addition, the analysis will cover the experiences of several Boston metropolitan area employers in providing employment opportunities for hard-core unemployed. In this phase, the study will focus on the performance of the disadvantaged at the work place as it relates to the operation of the internal job market.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.20 HARVARD UNIVERSITY CAMBRIDGE, MASS.

CONTRACT NO. 81-23-67-23

Principal Staff: Dr. James G. Scoville.

Project Title: A Study of the Conceptual Bases and Uses of Various Manpower and Occupational Systems

Objectives and Procedures: This study is examining existing manpower and occupational classification systems (including the *Dictionary of Occupational Titles*) and their underlying principles, purposes, and uses. Special attention is being given to: (1) Determining how the ultimate utilization of job data affects the methods of its collection and aggregation; (2) developing and refining concepts used in describing jobs or occupations; and (3) aggregating the various job classification systems into a more flexible framework for dealing with manpower and occupational questions. The researcher is conducting informal interviews with selected users and developers of various forms of occupational information to obtain, on a case study basis, accounts of data needs, untapped sources of information, and potential for improved data utilization. These case studies are being supplemented with material on various occupational classification systems collected from secondary sources.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.21 HARVARD UNIVERSITY CAMBRIDGE, MASS.

CONTRACT NO. 81-23-68-11

Principal Staff: Dr. Daniel Quinn Mills, Department of Economics.

Project Title: A Study of Selected Problems of Manpower Utilization in the Construction Industry: Intermittency of Employment, Unemployment, and Labor Shortages

Objectives and Procedures: This research will: (1) Identify and analyze certain problems of manpower utilization within the construction industry—in particular, intermittency of employment, high rates of unemployment, and labor shortages—with a view to—

ward developing recommendations for ameliorative action; (2) critically evaluate current data sources on manpower and expenditures in construction with reference to their effectiveness as manpower indicators and bases for policy development, and make suggestions for their improvement; and (3) outline suggestions and priorities for future research into manpower phenomena in construction.

Information will be gathered through informal, unstructured interviews with representatives of government agencies which undertake or contract for construction work, representatives of the industry (including contractor groups, materials suppliers, and labor organizations, and the administrators of health, welfare, and pension funds established under collective bargaining agreements), and persons in the academic community particularly knowledgeable about the industry.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.22 HARVARD UNIVERSITY CAMBRIDGE, MASS.

CONTRACT NO. 81-23-68-37⁴

Principal Staff: Dr. Richard B. Freeman, Department of Economics.

Project Title: A Study of Factors Affecting the Demand for Scientists, Engineers, and Technicians and Methods of Forecasting This Demand

Objectives and Procedures: This study will analyze factors affecting the demand for scientists, engineers, and technicians in an interindustry framework in order to improve manpower forecasts. More specifically, it will: (1) Estimate changes in the demand for scientists, engineers, and technicians; (2) seek the economic variables causing shifts in the demand for these workers over time; and (3) study the effects of research and development work on requirements for labor skills, capital, and intermediate goods relative to industry output.

The research will take place in three phases: (1) A model of the demand for scientists, engineers, and technicians will be developed and tested with salary and

⁴This study is cosponsored by the National Science Foundation.

employment data. This model will focus on the factors which shift demand for scientific workers over time and on substitution among different types of skilled manpower. (2) The study will use the techniques of input-output analysis to estimate direct and indirect employment of research and development manpower and capital in various industries. (3) Interviews will be conducted with representatives of firms with widely differing degrees of technological development.

By identifying differences in skill composition among firms with "best practice" technology and with older technologies, the study will assess whether knowledge of "best practice" techniques provides better estimates of future demand than analysis of the average technique in an entire industry. In addition, the interviews with firm representatives will attempt to examine the effect of research activity on labor productivity and shifts in skill composition.

Status of Project: A final report is due in fiscal year 1970.

1.1.23 UNIVERSITY OF HOUSTON HOUSTON, TEX., in cooperation with TEXAS SOUTHERN UNIVERSITY HOUSTON, TEX.

CONTRACT NO. 81-46-68-02

Principal Staff: Dr. J. E. Champagne and Dr. J. Earl Williams, University of Houston; Dr. Robert Prater, Texas Southern University.

Project Title: A Study of Negro Teenage Unemployment in Houston

Objectives and Procedures: Recognizing the higher unemployment rates of Negro youth compared to whites, this research will identify significant personal, social, and psychological characteristics of a sample of unemployed Negro teenagers in the Houston metropolitan area and compare these with similar characteristics of a group of unemployed white teenagers. The study will seek to discern factors contributing to the unemployment of Negro teenagers so that Federal policy and programs may be developed to alleviate this problem.

Personal interviews are being conducted with a sample of 288 white and Negro teenagers in Houston, aged 16 to 19, who either graduated or dropped out of

high school in 1966. The sample has been stratified by race, sex, employment, and age. Selection within strata has been on a random basis with all subjects representing equivalent socioeconomic neighborhoods or high schools. The data being collected cover demographic characteristics, nature and duration of education and training, work history, job search behavior, attitudes toward work, and aspirational as well as motivational indices.

Data have also been collected from employers regarding some of their problems in utilizing teenage youth, the job market for teenagers, recommendations for training needed, and differential experiences relating to race. The focus has been on entry-level jobs.

In the course of the study, an attempt will be made to identify and describe the training available to teenagers in Houston and to measure its adequacy in terms of the needs of both the subjects and the employers. Data will be collected from program officers, school personnel, and others.

The final report will provide insights into the problems of the urban Negro teenager in his attempts to seek employment. Significant training and/or educational gaps will be underscored, as well as common experiences of employers that have a bearing on potential remedial actions.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.24 ILLINOIS INSTITUTE OF TECHNOLOGY CHICAGO, ILL.

CONTRACT NO. 81-15-66-17

Principal Staff: Dr. Thomas J. McNichols and Dr. Elmer H. Burack.

Project Title: Management and Automation

Objectives and Procedures: This project is developing information on the effects of improvements in industrial technology on the activities and job requirements of managers and supervisors. New personnel skills, educational backgrounds, or individual characteristics that may be required of supervisory and middle-management workers in firms undergoing technological advance are being examined in terms of their influence on manpower planning.

The study will examine four companies in depth, utilizing records, interviews, questionnaires, and observations; and 40 companies are being surveyed on a more limited basis. All companies were selected by size and level of technology.

Status of Project: Completion is scheduled for fiscal year 1969.

Preliminary Highlights of Findings: More technically based operations, closer operating relationships among units, higher rates of output, and more control instruments are among the technological factors reshaping the functions and career patterns of supervisory and managerial personnel. The complex problem-solving skills needed in operations combining large numbers of variables are thought to be possessed largely by the technical degree holder. At the same time, sharper departures from older processes increase psychological and energy demands on personnel under faster paced conditions. These demands are reinforced by the phasing in of new processes and the higher costs of any disruption of processes.

In the wide number of areas where promotional paths are being modified, there is a clear tendency to overestimate the relevance of the technical degree, and to underestimate the potential of existing company personnel. As the technical degree holder is promoted in favor of the experience-based man, a gap is developing between lower and higher levels of management.

1.1.25 UNIVERSITY OF ILLINOIS URBANA, ILL.

CONTRACT NO. MDTA 5-64

Principal Staff: Dr. Walter H. Franke, Institute of Labor and Industrial Relations.

Project Title: Training and Recruitment Problems for Selected Technical Occupations in Short Supply

Objectives and Procedures: Severe occupational shortages exist in areas where there are also high levels of unemployment, often in technical occupations requiring considerable training. This study is designed to provide information useful for achieving more rational adjustments to occupational changes.

To determine the causes of these shortages and the effectiveness of current job placement processes and

institutions in ameliorating the shortages, studies were undertaken in the St. Louis and Chicago metropolitan areas in the following occupations: Licensed practical nurses; medical technologists; tool and die makers; tool and die designers; and engineering technicians in the electronics and metalworking fields.

Status of Project: Completion is scheduled for fiscal year 1969.

Preliminary Highlights of Findings: Findings indicate that labor shortages existed in all of the six skilled and technical occupations studied, even though there was not a general shortage of labor at the time. These shortages had persisted over extended periods of time and were related in various combinations for the different occupations to such factors as insufficient training facilities, turnover of trainees and journeymen, costs of training for both trainee and company, lack of systematic recruitment and counseling efforts, unsatisfactory wages and working conditions, and the attraction of alternative employment opportunities.

1.1.26 THE UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION LEXINGTON, KY.

CONTRACT NO. 81-19-68-13

Principal Staff: Dr. F. Ray Marshall, Department of Economics.

Project Title: Negro Employment in the South

Objectives and Procedures: The overall objectives of the study are: (1) To identify areas, industries, and occupations where Negro employment opportunities may be improved; and (2) to recommend manpower policies and programs to help attain this objective. The study will examine: (1) The political, social, and economic impediments to improving the employment opportunities of Negroes in 13 Southern States (the 11 Confederate States plus Kentucky and Oklahoma); (2) differences in the Negro employment patterns by industry, occupation, and geographic area; and (3) present and future employment prospects for Negroes in the South generally.

The project will utilize Equal Employment Opportunity Commission data; unpublished materials previously collected by the researcher; a 1-percent sample

taken from the Continuous Work History sample of the Social Security Administration for 1957, 1960, and 1965; industry and city surveys made by the Department of Labor; State Employment Service data where racial breakdowns are available; investigations conducted by the Southern Regional Council and civil rights groups and various other studies including the Ford Foundation study of Negroes in industry.

Status of Project: Completion is scheduled for fiscal year 1970.

1.1.27 THE UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION LEXINGTON, KY.

CONTRACT NO. 81-19-68-17

Principal Staff: Dr. Niles M. Hansen, Department of Economics.

Project Title: Employment and Manpower Development in a Regional Context

Objectives and Procedures: This study will examine the nature and consequences of manpower and employment problems in metropolitan areas and economically lagging regions. It will analyze these problems in terms of the market mechanism, government investment or other action, natural resources, private economic activity, human resource development, and population migration. The study, based on recent research and actual experiences of localities, is expected to provide a sounder basis for the development of an integrated policy and program strategy for dealing with regional and local manpower and employment problems from a national perspective.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.28 BUREAU OF LABOR STATISTICS U.S. DEPARTMENT OF LABOR WASHINGTON, D.C.

CONTRACT NO. 81-09-68-08

Principal Staff: Franz A. Groemping.

Project Title: A Study of Foreign Experience in Bridging the Gap Between Education and Work

Objectives and Procedures: Much less unemployment exists among young people in some foreign countries than in the United States, and adjustment by the young worker to the working world has been less difficult in those countries than in America. This project aims at: (1) Discovering the factors, agencies, and procedures which facilitate the transition from school to work in foreign countries; (2) identifying those procedures which could be applicable in the United States; and (3) highlighting the policy implications of the findings.

The study covers a number of Western European countries, as well as Canada, Japan, and Israel. It will describe and analyze for each country:

1. Factors and programs of the country's total economic and social system which affect labor force status, such as full employment, the role of agriculture, the industrial structure, the rate of technological change, and social and occupational mobility.

2. The educational system and its relation to preparation for work and careers.

3. Public and private occupational training programs (other than those of the secondary school), including apprenticeship programs and other on-the-job training in private industry, and the relation of these programs to acquiring and retaining jobs. This would include a discussion of planned and recently completed reforms, in general education as well as occupational schooling and training, which are intended to adjust youth to the changed work requirements of modern industry.

4. Hiring practices of private industry.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.29 UNIVERSITY OF MARYLAND COLLEGE PARK, MD.

CONTRACT NO. 81-19-37

Principal Staff: Dr. George A. Pownall.

Project Title: Employment Problems of Released Prisoners

Objectives and Procedures: This is a pilot investigation of the employment problems of released prisoners and their experiences in the light of their pre-prison educational background and job experiences, and their vocational or work-related training in prison. The information gathered will serve as a basis for recommendations to improve vocational training programs in

correctional institutions and to increase employment opportunities for released prisoners. A secondary objective is to develop suggestions for improving the reporting system through which employment and related data on parolees are collected. This will be accomplished through an analysis of parole reports on file with the U.S. Bureau of Prisons.

Information is being obtained through interviews with parolees in the Baltimore and Philadelphia areas and from official records. Detailed information is being gathered concerning parolees' jobseeking efforts, wages, satisfaction with employment, and reasons for not seeking work if not gainfully occupied. In order that the longitudinal information will be complete, interviews are also being scheduled with parolees who return to prison.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.30 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

CONTRACT NO. MDTA 9-63

Principal Staff: Dr. Einar Hardin, Dr. Sigmund Nosow, and Dr. Michael E. Borus, School of Labor and Industrial Relations.

Project Title: Measuring the Benefits and Costs of Retraining Programs for Unemployed Workers

Objectives and Procedures: This study seeks to determine whether there are net economic advantages from Federal retraining programs to the individual participants and to society as a whole. Three sets of estimates are being developed: (1) Private benefits and costs to participating individuals; (2) social benefits and costs, covering impacts on the national economy; and (3) budget impacts, covering changes in Government tax receipts and expenditures. From interviews with trainees and control groups, data were gathered on benefits, personal characteristics, and selected socio-psychological variables. Most of the cost elements are being estimated from information provided by educational institutions and Government agencies.

Status of Project: A report on the first part of the study, concerning trainee attributes associated with successful retraining, is available (see 3.1.46). Completion of the second part is scheduled for fiscal year 1969.

Preliminary Highlights of Findings: The study shows that training in short classes increased the annual earnings of enrollees by an average of \$975 per person (1 year after training). According to the researchers, training raised the earnings more for persons with little rather than much formal schooling, and nonwhites gained as much as and possibly more than did whites.

**1.1.31 MICHIGAN STATE UNIVERSITY
EAST LANSING, MICH.**

CONTRACT NO. 81-24-66-32

Principal Staff: Dr. Harvey M. Choldin and Grafton Trout, Rural Manpower Center.

Project Title: The Mexican American Migrant Farmworker in Transition

Objectives and Procedures: This study will describe the process by which Mexican American migrant farmworkers drop out of the migrant stream, settle in northern communities, and adjust to new labor force requirements and opportunities. It will also identify factors affecting the settlement and stabilization of migrant workers in selected communities, with specific attention to occupation and income.

Interviews are being held with 700 migrants and 100 community leaders in selected "dropout" areas to provide demographic and other information, including occupational background, motivation for dropping out of the migrant stream, kinship and friendship ties, job aspirations, interests in training and retraining, and community reactions.

Status of Project: An interim working paper based on analysis of key items in the questionnaire is expected by fall 1968. Completion of the study is scheduled for fiscal year 1969.

**1.1.32 MICHIGAN STATE UNIVERSITY
EAST LANSING, MICH.**

CONTRACT NO. 81-24-68-42

Principal Staff: Dr. R. F. Cargill and Dr. George E. Rossmiller, Department of Economics.

Project Title: The Manpower Implications of Mechanization for Fruit and Vegetable Harvesting

Objectives and Procedures: This project builds on a previous conference among scientists concerning the present and prospective status of mechanization in fruit and vegetable harvesting. In the present study, manpower researchers and special consultants from fruit and vegetable areas are analyzing this technical information and other data in terms of potential effects of mechanization on farm manpower and wages. The researchers and consultants will be brought together to discuss these implications, reach conclusions on problem areas, and make recommendations for government action regarding policies, programs, and directions for future research.

Status of Project: Completion is scheduled for early fiscal year 1970.

**1.1.33 MICHIGAN STATE UNIVERSITY
EAST LANSING, MICH.**

CONTRACT NO. 81-24-68-45

Principal Staff: Dr. Daniel H. Kruger, School of Labor and Industrial Relations.

Project Title: A Study of Occupational Licensing in Selected States and Municipalities: Its Implications for Manpower Policy

Objectives and Procedures: This project will assess the feasibility of collecting quantitative data on licensing of nonprofessional workers. It will provide insights into the licensing process and the kinds of impediments to job mobility created for disadvantaged workers by licensing requirements.

Data will be derived from personal interviews with licensing officials at all governmental levels in three States with different patterns of political units having licensing authority—Michigan, Ohio, and a Southern State.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.34 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

CONTRACT NO. MDTA 17-63⁵

Principal Staff: Dr. J. R. P. French, Jr., Dr. Gerald Gurin, and Dr. David Bradford.

Project Title: Attitude Survey of Manpower Development and Training Act Trainees

Objectives and Procedures: This study seeks to evaluate the attitudes and motivation of MDTA trainees. Information was sought from 6,000 trainees, 2,000 by means of personal interviews and 4,000 through written questionnaires administered by instructors of MDTA courses. Trainees were questioned on their attitudes toward the MDTA program, their satisfaction with teaching methods, their perception of the relevance of instruction to work experience, their reactions to past unemployment, and their rating of the skills for which they were trained compared with previous skill levels.

Analyses are being made to compare changes in attitudes and motivation over time—at enrollment, on completion of the program (or on dropping out), and 6 months after completion of training. Postprogram job histories, including relevance of training to subsequent employment and to effectiveness of job performance, are being related to attitudinal and motivational changes, to certain demographic characteristics of the trainees, to their mobility history, and to previous labor force experience.

Ratings of trainees' performance in posttraining jobs were sought from the supervisors of about 1,000 of the trainees.

Status of Project: Completion is scheduled for fiscal year 1969.

Preliminary Highlights of Findings: An analysis of the responses to the pretraining questionnaire indicates that the trainees who dropped out of the program to take jobs were very similar to the group of trainees who completed the program, except that the former group felt under greater economic pressure at the time they entered the program. They were less certain that the training allowances would be adequate, they felt that they would have to work to supplement

payments, they were more often married, and they more often had very young children. They also had less savings and more debts. Their greater economic concern, therefore, was a realistic reflection of their more precarious economic situation.

1.1.35 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

CONTRACT NO. 81-24-67-02

Principal Staff: Dr. Eva Mueller, Dr. John Parker, and Dr. John Sonquist, Survey Research Center.

Project Title: Study of the Impact of Changes in Machine Technology on a Cross Section of the Labor Force

Objectives and Procedures: This study is assessing the impact of automation on a cross section of the labor force. Data were obtained on the extent to which people see recent changes in their job content and employment conditions as brought about by changes in machine technology. This study also focuses on the effects of perceived technological changes on people's career decisions, expectations, aspirations, and skill utilization.

The field survey covered a stratified probability sample representing all households in the continental United States. In all, 2,800 households were included in the sample, and personal interviews held with all the occupants in the labor force.

This study is expected to add significantly to knowledge of the pervasiveness and nature of various work changes resulting from changing machine technology, and the consequences of such changes for occupational progress and career decisions.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.36 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

CONTRACT NO. 81-24-68-26

Principal Staff: Dr. Charles F. Cannell, Institute for Social Research.

Project Title: Interviewer-Respondent Interaction in Household Interviews

⁵This project is jointly sponsored by the Manpower Administration, U.S. Department of Labor, and the Office of Education, U.S. Department of Health, Education, and Welfare.

Objectives and Procedures: This study will examine some of the causes of inaccuracy in data derived from household surveys, frequent sources of manpower-related information. The study will identify some potential problems of interaction between interviewers and respondents, and will test hypotheses about what kinds of behavior patterns are likely to develop during interviews.

The study will adapt a previously developed technique for recording interviewer and respondent behavior to an interview dealing with factual information about labor-related characteristics. A trained group of observers will record behavior.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.37 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

CONTRACT NO. 81-24-68-33^o

Principal Staff: Dr. Robert L. Kahn and Dr. J. C. Bachman, Institute for Social Research.

Project Title: A Comparative Study of Three Adolescent Environments: High School, Work and Unemployment

Objectives and Procedures: This project investigates three basic questions:

1. What differences are effected by three major patterns of education and socialization in late adolescence—high school, employment, and unemployment?

2. Against what benchmarks can innovative developments in education and training (the Job Corps, for example) be explained?

3. In terms of what dimensions can the effects of these several educational environments be explained?

The study is considering boys in the transitional period from late in the 15th year to early in the 18th year. At the beginning of this period, practically all boys are in secondary schools; at the end, most will have left the school environment and entered the work force, where they will be either employed or

^oThe U.S. Department of Labor is jointly sponsoring this study, conducted under a University of Michigan contract with the U.S. Office of Education, Department of Health, Education, and Welfare.

unemployed. Three groups of boys are being studied: (1) 900 boys who remain in secondary school until they graduate; (2) 600 boys who leave school shortly after their 16th birthday and soon find jobs; (3) 300 boys who leave school shortly after their 16th birthday and do not readily find jobs.

Data are being collected from the boys at three points in time—the fall of 1966, the spring of 1968, and the fall of 1969.

Status of Project: Completion is scheduled for fiscal year 1970.

1.1.38 UNIVERSITY OF MINNESOTA MINNEAPOLIS, MINN.

CONTRACT NO. 81-22-01

Principal Staff: Dr. Rene Dawis, Industrial Relation Center.

Project Title: Work Attitudes of Unemployed Youth

Objectives and Procedures: This study is examining the attitudes, needs, expectations, beliefs, and perceptions of unemployed youth and their relation to desirable and undesirable work experience. The socioeconomic characteristics associated with these subjective attitudes are also being explored. Data on work attitudes are being compared with job experience records to assess the extent to which attitudes govern employment success or failure.

The study compares three samples of 100 individuals each drawn from Minneapolis public high schools, including recent high school graduates, students identified by their school counselors as potential dropouts, and recent dropouts. The young people in each sample are being queried periodically for a year after the first contact as to their job-finding time if employed, pay rate, number of jobs held, time employed, and job satisfaction. Variables believed to influence employment experience are being evaluated through tests, questionnaires, and interviews. These variables are level of education; attitudes, needs, expectations, beliefs, and perceptions; jobseeking behavior; work history prior to data-collection period; aptitudes and demographic variables such as age, race, parental occupation, and parental education.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.39 ROBERT R. NATHAN ASSOCIATES
WASHINGTON, D.C.

CONTRACT NO. 81-09-68-01

Principal Staff: Dr. Paul Weinstein.

Project Title: Study of the Transferability of Military Trained Medical Personnel to the Civilian Sector

Objectives and Procedures: Serious shortages of trained workers in the health occupations constitute a major area of concern to the Department of Labor, which is conducting a number of programs aimed at relieving these shortages. The large numbers of military personnel discharged from the service each year who have had training in health occupations represent a potential source of health manpower. If methods can be developed for increasing the proportion of such veterans who continue to work in health occupations as civilians, significant gains should result.

This study will explore the factors which contribute to the occupational decisions of veterans, and will focus particularly on those factors which can be altered through the intervention of government and nongovernment policies and programs. The study will investigate the perceptions, attitudes, and motivations of veterans in relationship to their willingness to continue in long-term careers in civilian medical occupations.

Data will be collected from newly separated military personnel covering such areas as the nature and extent of their information about jobs and skill requirements of civilian medical occupations; factors that tend to make job careers in the medical field attractive or unattractive; and the veterans' willingness to undergo additional training to meet medical occupation requirements.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.40 NATIONAL INDUSTRIAL CONFERENCE BOARD
NEW YORK, N.Y.

CONTRACT NO. 81-34-66-13

Principal Staff: Dr. Daniel Creamer and Dr. John G. Myers.

Project Title: Role of Job Vacancies—Case Study of Rochester, N.Y., in 1965

Objectives and Procedures: This study is designed to explore and evaluate the usefulness of job vacancy data in understanding how labor areas operate. The study deals with the methodological aspects of job vacancy statistics as well as potential applications of such statistics. The following three parts are included:

1. "An Optimal Sample Design For a Job Vacancy Survey." This study presents a plan for the selection of a statistical sample for use in job vacancy surveys, which aim to collect, at a feasible cost, data of sufficient reliability to produce measures of vacancies at a point in time and measures of changes between surveys.

2. "Survey of Hiring Costs." This survey, covering 17 employers in the Rochester, N.Y., area, developed information on the costs incurred by employers in hiring workers. The study covered all occupations and employed a broad definition of the costs of adding workers, including training expense.

3. "Job Vacancies in the Firm and the Job Market." This study considers the subject of job vacancies from the standpoint of both the employing firm and the broader community. The usefulness of various alternative models is evaluated, and new measures are developed of the interrelations between job vacancies and other economic variables.

Status of Project: A final report is scheduled for fiscal year 1969. The second of the three studies listed has been completed, and a report has been published by the National Industrial Conference Board.

Preliminary Highlights of Findings: The Survey of Hiring Costs yielded an average cost per hire of \$222 for manufacturing employers and \$138 for non-manufacturing. The importance of cost components varied widely by occupation and between manufacturing and nonmanufacturing employers.

1.1.41 NATIONAL MANPOWER POLICY TASK FORCE
WASHINGTON, D.C.

CONTRACT NO. 81-09-66-31

Principal Staff: Dr. John T. Dunlop and Dr. Garth L. Mangum.

Project Title: Identifying Needs and Priorities in Manpower Research

Objectives and Procedures: Current manpower information is being reviewed and assessed in relation to the need for new and changing manpower policies, programs, and research. This is being accomplished through liaison with government and the research community, and through the preparation of special papers and reports on the state of knowledge on priority policy issues.

Status of Project: Reports are published as they become available (see 3.1.58).

**1.1.42 NATIONAL MANPOWER POLICY
TASK FORCE
WASHINGTON, D.C.**

CONTRACT NO. 81-51-68-22

Principal Staff: Dr. Garth L. Mangum and Arnold Nemore.

Project Title: Conference on Transition From School to Work

Objectives and Procedures: This conference, held at Princeton University, brought together specialists for a working session in which about a dozen papers were presented concerning the transition from school to work. Those attending prepared comments and discussed specific policy issues in the field. A report will include the prepared papers and a summary of the comments and discussion.

Status of the Project: Completion is scheduled for fiscal year 1969.

**1.1.43 NATIONAL PLANNING ASSOCIATION
WASHINGTON, D.C.**

CONTRACT NO. 81-09-67-08

Principal Staff: Dr. Leonard A. Lecht.

Project Title: Manpower Implications of National Goals and Public Programs

Objectives and Procedures: This study intends to develop a system for evaluating the impact on manpower of public programs and private activities which affect national goals. The project involves two elements:

(1) Preparing a study of manpower requirements and prospective manpower shortages which are likely to result from the pursuit of national objectives in the next decade. Estimates will be based on programs designed to combat poverty to a degree consistent with the pursuit of other national objectives within an achievable level of gross national product by 1975. (2) Performing service functions for the Department of Labor, including the preparation of reports covering manpower areas of special interest, and alerting the Department about new developments affecting manpower requirements and important new research in the manpower field. Reports already prepared include "Manpower Implications of Legislation in the First Session of the Ninetieth Congress" and "Employment Changes Due to a Tapering Off of the War in Vietnam." A study of the manpower implications of the programs considered in the Report of the National Advisory Commission on Civil Disorders is underway.

The current study of the manpower effects of a large-scale effort to cope with poverty grew out of an earlier National Planning Association study sponsored by the Manpower Administration (see 2.1.14). The new study estimates 1975 manpower demand in terms of specific occupations and compares these figures to estimates of supply to indicate occupational areas expected to be characterized by significant shortage or surplus conditions. Estimates are made for two basic sets of budgetary assumptions: (1) Continuation of current high levels of military expenditures with moderate increases in expenditures for antipoverty programs and other objectives; and (2) a cutback of military expenditures from present levels with released funds made available for augmented programs in the antipoverty area.

Status of Project: A number of special reports have been completed under the service element of this contract. A final report on the extended study of manpower requirements of various poverty programs is expected during fiscal year 1969.

**1.1.44 NATIONAL PLANNING ASSOCIATION
WASHINGTON, D.C.**

CONTRACT NO. 81-09-68-36

Principal Staff: Dr. Leonard A. Lecht.

Project Title: Research on the Universe of Need and Manpower Requirements for National Programs.

Objectives and Procedures: This study consists of three major components:

1. The researchers will develop national estimates of training requirements and social programs covering the "universe of need," which consists of such persons as the long-term unemployed, full-time workers earning inadequate incomes, part-time workers, the disabled, those lacking child care services, and those who believe that jobs are not to be found. The estimates will be by such characteristics as age, sex, level of education, and last occupation.

2. The researchers will identify and analyze the manpower implications of current and proposed legislation, and of various national programs underway or under consideration—such as training programs, income support measures, child care programs, and model cities programs.

3. Building on their recently completed study, "Manpower Requirements for National Objectives in the 1970's," (see 2.1.14) the researchers will develop estimates of the number of jobs for nonwhites that would result per billion dollars of expenditures on various national priority programs.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.45 NEW YORK UNIVERSITY NEW YORK, N.Y.

CONTRACT NO. 81-34-66-25

Principal Staff: Dr. Daniel E. Diamond.

Project Title: A Study of the Relationship of Industry Hiring Practices to the Employment of Disadvantaged Groups

Objectives and Procedures: This study is designed to compare formal and informal hiring requirements with actual job performance needs in a number of occupations, and to investigate the characteristics and employability of jobseekers from disadvantaged groups who are capable of meeting actual job performance requirements. The study is expected to cover about 10

occupations in a minimum of two areas in different parts of the country.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.46 NORTH CAROLINA STATE UNIVERSITY, RALEIGH RALEIGH, N.C., in cooperation with NORTH CAROLINA AGRICULTURAL AND TECHNICAL COLLEGE, GREENSBORO GREENSBORO, N.C.

CONTRACT NO. 81-35-67-27

Principal Staff: Dr. Charles H. Rogers (NCSU) and Benjamin Harris (NCA&TC).

Project Title: Generic Bases of Negro Teenage Unemployment: A Preliminary Investigation

Objectives and Procedures: This study is investigating the reasons—educational, psychological, familial, sociological, and situational—for the excessively high rate of unemployment among Negro teenage youth in rural communities. Objectives include: (1) Formulation of recommendations for remedial programs; and (2) development of a plan for possible further research into constructing and operating a program tailored to meet the needs of these youth.

In two adjacent counties in North Carolina, a study in depth is being made of a sample of 345 out-of-school teenage youth who graduated or dropped out of high school in 1966. Interviews probe the job-hunting techniques, knowledge of the job market, employment experience, aspirations, and self-image of the teenagers, as well as their family background, education, and training. A sample of employers and school officials is also being interviewed and their responses used in an evaluation of job opportunities, community attitudes, and the adequacy of educational and training facilities available to Negro youth in the area.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.1.47 UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, N.C.**

CONTRACT NO. MDTA 26-64

Principal Staff: Dr. Robert R. Cadmus and Dr. James P. Harkness.

Project Title: A Manpower Study of Clinical Laboratory Personnel, Including Medical Technicians

Objectives and Procedures: This pilot project studies jobs of a random sample of individuals performing laboratory tests in hospitals in North Carolina. The jobs range from that of laboratory assistant and medical technologist to clinical pathologist. Information is obtained by interview on a variety of background factors including education and training. Relationships among laboratory activities, skill in laboratory procedures, and individual backgrounds are examined in an attempt to sort out the various levels of skill required in the field of medical technology. Skill levels required for various clinical laboratory tasks are related to the appropriate educational requirements.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.1.48 NORTHEASTERN UNIVERSITY
BOSTON, MASS.**

CONTRACT NO. 81-20-34

Principal Staff: Dr. Morris A. Horowitz and Dr. Irwin L. Herrnsstadt, Department of Economics.

Project Title: Evaluation of the Training of Tool and Die Makers

Objectives and Procedures: This two-phase study was designed: (1) To identify and evaluate the various avenues of skill acquisition—education, training, and work experience—leading to journeyman status as a tool and die maker; (2) to determine the effectiveness of existing institutions, methods, and practices in pro-

viding workers with skills of a journeyman tool and die maker that are responsive to industry's demands; and (3) to gain some insight into the factors influencing career decisions by youth entering this occupation.

In the first phase of this study, a sample of tool and die makers employed in a number of firms in selected metalworking industries in the Boston standard metropolitan statistical area was surveyed, and data were collected relative to the nature and extent of the education, training, and work experience that led to the workers' acquiring journeyman status as tool and die makers.

In the second phase of the study, the actual job requirements in the selected firms are being related to the range of skills possessed by the sample subjects and the avenues through which these skills were acquired. A limited number of the tool and die makers are being intensively interviewed to determine their range of skills and the degree to which these skills are utilized in their day-to-day job assignments.

Actual job requirements in the firms are being inter-related with the extent of skills possessed by the sample of journeymen and the paths through which these skills were acquired. By this means, the researchers are seeking to evaluate the most effective patterns of skill acquisition relative to industry needs and to draw implications concerning the effectiveness of existing methods, practices, and institutions through which these skills are obtained.

The third segment of the research will study the experiences of youth in this occupation during the transition period from school to work. Information will be collected from school administrators and vocational instructors in 10 vocational high schools in the Boston area relative to the ways in which course content, the experience of instructors, counseling, and job creation activities contribute to a reduction in drop-outs and to placement in metalworking occupations for which the students have been educated. Management personnel in about 20 firms that have employed recent graduates of these schools will be questioned in order to learn (1) their attitudes toward hiring and retraining such students, and (2) their evaluation of the adequacy of vocational school programs in general in meeting industry job needs. Finally, approximately 30 vocational high school seniors and 30 recently hired

workers in metalworking trades will be interviewed in order to learn their impressions of the value of their schooling preparation for the transition to work. The 30 recently hired workers in the metalworking trades will also be questioned about their job-finding experiences subsequent to leaving school.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.1.49 THE OHIO STATE UNIVERSITY RE-
SEARCH FOUNDATION
COLUMBUS, OHIO, and**

**BUREAU OF THE CENSUS
U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C.**

CONTRACT NO. 81-37-68-21⁷
81-08-38

Principal Staff: Dr. Herbert S. Parnes, Center for Human Resources Research, Ohio State University; and Demographic Surveys Division, Bureau of the Census.

Project Title: Longitudinal Study of Labor Force Behavior

Objectives and Procedures: This study will identify and explore changes over an extended period of time in the interrelations among factors influencing the work behavior and experience of individuals in the following groups: Young men and women, age 14 to 24; men, age 45 to 59; and women, age 30 to 44. Available data on employment and unemployment by demographic, occupational, and industrial characteristics permit identification of some of the important factors associated with the job difficulties of these groups (e.g., inadequate education or discriminatory hiring practices). What is not known, however, is the interaction among economic, sociological, and psychological variables that permits some members of a given age-education-occupation group to have satisfactory work experience while others do not. The completed study will constitute a comprehensive body of data on labor mobility for the above segments of the labor force.

⁷This follow-on contract continues a study initiated under expired contract 81-34-28.

This study contemplates six consecutive surveys 1 year apart with each of the four population samples. The Bureau of the Census is drawing the samples, conducting the interviews, and making data tabulations. Ohio State is preparing the interview schedules, planning the required tabulations of the data, analyzing the results, preparing reports on the surveys for each age-sex group, and writing a final comprehensive report covering the six surveys for each group.

The interview schedules for the initial surveys included extensive work histories of the respondents as well as questions that permitted at least simple psychological and sociological profiles of the respondents. Both initial and subsequent surveys will involve probing questions designed to uncover motivational factors in labor force behavior.

Status of Project:

1. Eight national annual surveys have been conducted by the Bureau of the Census:

- a. Three of men, age 45 to 59 (one by mail).
- b. Two of women, age 30 to 44 (one by mail).
- c. Two of young men, age 14 to 24.
- d. One of young women, age 14 to 24.

2. Four reports prepared by Ohio State are scheduled for the following completion dates:

- a. Initial survey of men, age 45 to 59—October 1968.
- b. Initial survey of young men, age 14 to 24—January 1969.
- c. Initial survey of women, age 30 to 44—June 1969.
- d. Subsequent survey of men, age 45 to 59—June 1969.

Preliminary Highlights of Findings: For young men age 14 to 24, estimates of employment and unemployment from this study's longitudinal survey (LGS) differ substantially from estimates based on data collected in the Current Population Survey (CPS). The LGS estimate of the labor force total for these young men is 2.4 million greater than the CPS estimate and the LGS labor force participation rate is about one-fourth greater. The rate of unemployment is also higher in the LGS than the CPS for students and lower for nonstudents.

The size of the differences between the LGS and CPS figures raises important questions concerning the results obtainable from interviews with the respondent himself, as in the LGS, and from interviews with any

adult household member, as in the CPS. Other factors could also influence the differences observed, such as survey timing, questions used, and whether or not the individuals have been interviewed more than once.

Report findings also help to explain the much lower unemployment rate for males in their early twenties compared with young men in their late teens. Compared with teenagers, men in their twenties are more likely to be nonstudents, better educated, and married. Each of these characteristics seems to be associated with low unemployment, independent of age.

1.1.50 THE PENNSYLVANIA STATE UNIVERSITY

UNIVERSITY PARK, PA., and
BUREAU OF EMPLOYMENT
SECURITY
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.

CONTRACT NO. 81-40-67-05
81-40-67-09

Principal Staff: Dr. Jacob J. Kaufman and Dr. David W. Stevens.

Project Title: A Study to Determine the Influence of Supplemental Labor Market Information on the Job-seeking Behavior of Selected Groups of Unemployed Workers

Objectives and Procedures: This research is testing a plan for facilitating placement of jobseekers. An experimental program was undertaken in which certain unemployed workers visiting a local office of the State Employment Service were given the names of employers who were known to employ workers with skills similar to their own. This information was given in addition to the usual services provided to all applicants by the local office.

Through followup interviews the success of these workers in finding jobs is being compared with that of a control group receiving only normal services. The two groups are being matched to minimize the effects of other characteristics, such as age, sex, color, marital status, and occupation.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.51 THE PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK, PA.

CONTRACT NO. 81-40-68-12

Principal Staff: Dr. James S. Holt, Department of Agricultural Economics and Rural Sociology.

Project Title: The Agricultural Labor Force and Labor Market in the Northeastern States

Objectives and Procedures: This study will evaluate and analyze data on the farm labor force and farm employment in 12 Northeastern States (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia) to assess the adequacy of the labor force to meet current and expected employment needs.

The supply and demand for the services of farmworkers in these States will be analyzed based on knowledge of the farm labor force, patterns of labor use, and ongoing and expected technological changes. The demographic characteristics of current and potential farmworkers will be ascertained, and the institutional framework for matching workers and jobs will be examined. The labor supply and demand relationships for each of the major agricultural commodities, types of workers, and major job market areas within the 12-State region will be analyzed where data permit.

This study is expected to provide a coordinated analysis of the supply and demand for agricultural labor for the entire region. It is also expected to identify the limitations and gaps in existing data sources and recommend improvements.

Status of Project: The project will be completed during fiscal year 1969.

1.1.52 THE PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK, PA.

CONTRACT NO. 81-40-68-20

Principal Staff: Dr. Jacob J. Kaufman and Dr. Louis Levine, Institute for Research on Human Resources.

Project Title: Manpower Research University Workshops

Objectives and Procedures: This project conducted two manpower research-oriented conferences, one at the University of Tennessee, and the second at San Francisco State College, to encourage a carefully selected group of university people, who had recently been awarded their doctoral degrees, to specialize in the manpower field and to engage in relevant research. The conference workshops provided an excellent opportunity for interchange of views and ideas on needed research in the human resources and manpower field in the light of emerging problems, existing policies, and recently enacted legislation.

Status of Project: Conference reports are to be submitted during fiscal year 1969.

1.1.53 CITY OF PHILADELPHIA PHILADELPHIA, PA.

CONTRACT NO. MDTA 14-64

Principal Staff: Richard Olanoff, Dr. Aaron Spector, Dr. Saul Leshner, and Dr. Ralph Ormsby, Manpower Utilization Commission.

Project Title: A Study of the Need for Work Adjustment and Social Work Assistance for the Long-Term Unemployed

Objectives and Procedures: Underlying this project is the belief that emotional, psychological, and motivational factors operate to incapacitate many long-term unemployed individuals so that they can neither participate in the world of work nor benefit from vocational training or retraining. It is also believed that these handicaps can be overcome through specific prevocational services consisting of work adjustment and/or social work assistance (for personal and family problems).

The original research design called for provision of these services separately or in combination to one-half of the persons who were determined to need them. By comparing the training and subsequent employment records of those who needed and received the services with those who needed but did not receive them, the researchers sought to determine whether specific programs of assistance provided to the long-term unemployed significantly improved their potential for training and employment. An attempt was also made to assess the evaluation of subjects' work capacity which

was developed by the Jewish Employment and Vocational Service and Family Services of Philadelphia. The relationships between the personal and work background characteristics of the men who received both work adjustment and social work counseling, as well as their work capacity and amount of stress experienced, are being given special attention.

Status of Project: Completion is scheduled for fiscal year 1969.

Preliminary Highlights of Findings: Early progress reports indicated that persons identified as needing social work assistance invariably also needed work adjustment counseling. Therefore, the research sample for social work assistance only was eliminated.

Followup interviews also indicated that people who needed and got the prevocational services were offered, started, and completed MDTA training in higher proportions than those who needed but did not get the services. The relatively high rate of program completion (68 percent) of the very hard-core group (which needed and got both types of services) indicated that this group did benefit from a comprehensive vocational rehabilitation approach. However, even with the services provided, more than 20 percent of the men were not classified as job-ready. Study findings highlighted the different kinds of problems faced by the long-term unemployed and suggest the need for individual evaluation and differential work rehabilitation programs.

1.1.54 PLANNING RESEARCH CORPORATION WASHINGTON, D.C.

CONTRACT NO. 81-05-68-06

Principal Staff: Dr. Norman H. Jones and Dr. Allan H. Muir.

Project Title: Cost-Benefit Program Supportive Services

Objectives and Procedures:

1. Analyze the data developed in the contractor's recent work in on-the-job and institutional training through use of multiple correlations, measures of significance, and other statistical tools.

2. Develop a methodology and sampling technique to use Social Security data to measure more precisely

the benefits of training through a comparison of pre-course and postcourse employment and earnings.

3. Structure an in-depth survey and analysis at the U.S. Employment Service local level to explore the possibilities of locating better data for cost-benefit and other managerial purposes and to develop a State model evaluation system with a supporting information system.

4. Prepare a technique to show how the Manpower Administration can establish its optimum investment in a particular individual, given his age, education, skills, attitudes, etc.

5. Formulate a consistent goal structure for programs oriented toward the disadvantaged, devise a cost goal study susceptible to quantification, and calculate the cost goal curve, insofar as data permit.

6. Outline a plan to explore in depth Bureau of Employment Security and other government data sources that would support a more penetrating cost-constraint analysis in the income maintenance area.

7. Investigate criteria to be established for structuring cost-benefit analysis on sample versus universe data, one-time versus continuous studies, cross-sectional versus longitudinal studies, etc.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.55 PRINCETON UNIVERSITY PRINCETON, N.J.

CONTRACT NO. 81-32-67-19⁸

Principal Staff: Dr. Stanley Black and Dr. Frederick H. Harbison.

Project Title: Systems Analysis and the Labor Market

Objectives and Procedures: This exploratory research intends primarily to investigate the use of systems analysis techniques in the analysis of job market operations. This is expected to yield a set of substantive findings using a series of econometric models which will enable analysts and policymakers to trace the effects of both external pressures and alternative manpower

⁸ Federal support for this project is also provided by the U.S. Office of Education, Department of Health, Education, and Welfare, the National Science Foundation, and the National Bureau of Standards, U.S. Department of Commerce.

policies in the American system of job markets. To achieve the objectives, a macro-model and certain micro-models are being constructed to yield predictions of the effects of various pressures on the job market system.

Status of Project: Completion of the second year follow-on work is scheduled for fiscal year 1969. During the first year of the project, a macro-model of the U.S. job market was constructed and fitted to postwar quarterly data. The second year's work will focus on the construction of micro-economic models of smaller segments of the job market.

Preliminary Highlights of Findings: The construction and estimation of the macro-model demonstrated how to take account of well-known interrelationships between job markets and product markets, without estimating a model of the entire economy. The methods used can be applied to the analysis of various economic subsystems. The most significant pitfall uncovered for model builders in this area is the need to take into account fixed costs related to the hiring and firing of labor. When these costs are specifically built into job market models, many apparent paradoxes of empirical behavior are clarified, and the short-run role of wages and the behavior of productivity become explicable.

1.1.56 PURDUE RESEARCH FOUNDATION LAFAYETTE, IND.

CONTRACT NO. 81-13-33

Principal Staff: Dr. Alfred S. Drew, Department of Industrial Education.

Project Title: A Study of the Need for Educational and Training Adjustments in the Apprenticeship Programs for Selected Craft Occupations

Objectives and Procedures: This study will develop models of apprenticeship programs in selected craft occupations. Special attention will be given to incorporating built-in procedures for adapting to technological change.

Questionnaires and other survey instruments have been developed and utilized by an interdisciplinary

research staff from the fields of industrial education, engineering, sociology, psychology, and economics, in order to secure data on the format, content, and effectiveness of current apprenticeship training programs. Information has been obtained from apprentices in training, their instructors, journeymen craftsmen, teacher-educators, and labor and management representatives. Areas examined include basic subject matter, such as mathematics and trade technology, the background of qualified instructors, on-the-job training, and provisions for developing desirable attitudes of high school youth toward apprenticeship.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.57 RESEARCH TRIANGLE INSTITUTE DURHAM, N.C.

CONTRACT NO. 81-35-67-01

Principal Staff: Dr. A. L. Finkner, Dr. Daniel G. Horvitz, and Dr. William Eckerman.

Project Title: A Comprehensive Assessment of the Problems and Characteristics of Neighborhood Youth Corps Enrollees: A Pilot Investigation

Objectives and Procedures: This study is developing a framework for classifying Neighborhood Youth Corps enrollees by problem area. Hypotheses related to each problem area—and the program techniques which are most effective in helping youth whose problems can be so classified—are being formulated and tested. Results of the study are expected to provide NYC workers with a sounder basis for foreseeing the potential effects, impact, and general manifestations of problems among enrollees.

Information is being derived from a sample of in-school youth and school dropouts enrolled in an NYC program in North Carolina. Data on selected personal and social characteristics are being obtained through psychological and aptitude tests and personal interviews.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.58 SOFTWARE SYSTEMS, INC. FALLS CHURCH, VA.

CONTRACT NO. 81-49-68-31

Principal Staff: Dr. Harold C. Strasel.

Project Title: A Study of the Characteristics of Individuals Incarcerated in Connection with the April 1968 District of Columbia Civil Disorder

Objectives and Procedures: This study will compile a report on the personal, social, and economic characteristics of the individuals incarcerated in connection with the April 1968 District of Columbia civil disorder. Data will be obtained from District of Columbia Bail Agency interview forms.

Status of Project: The report is scheduled for completion in fiscal year 1969.

1.1.59 STANFORD UNIVERSITY PALO ALTO, CALIF.

CONTRACT NO. 81-05-66-11

Principal Staff: Dr. Joseph Katz, Dr. Harold A. Korn, and Dr. Max M. Levin, Institute for the Study of Human Resources.

Project Title: Decision Process and Determinants in Occupational Choice

Objectives and Procedures: This is a 2-year investigation of the occupational decisionmaking process and the determinants of occupational choice. The impact of the following factors on the occupational decision is being studied: (1) Influential persons; (2) occupational information and experience; (3) motivations and attitudes to work and career; (4) personality characteristics; and (5) socioeconomic status.

In the first year, 1,200 subjects randomly selected from two different student populations were examined through questionnaires regarding their vocational interests, aptitudes, and personality characteristics. About 240 randomly selected subjects were given intensive interviews to substantiate information obtained from psychological tests and the questionnaires. In the second year, the same tests were readministered to the original 1,200 subjects and a new questionnaire was

designed to register changes in occupational choice and to elicit determinants of such changes in the intervening year. The same 240 subjects were reinterviewed.

Status of Project: A final report is scheduled for fiscal year 1969.

1.1.60 SYSTEM DEVELOPMENT CORP. SANTA MONICA, CALIF.

CONTRACT NO. 81-05-68-28^{*}

Principal Staff: Dr. Marvin Adelson and Dr. Joseph Fink.

Project Title: Second Year Follow-on: Research Program on the Application of Systems Analysis to Manpower Adjustment

Objectives and Procedures: This is an exploratory study to test whether systems analysis techniques can enhance current methods of dealing with manpower problems. The initial research is determining what aspects of the systems approach can be practically applied in the development of manpower policy and planning.

Interviews were held with the representatives of government and industrial and academic organizations concerned with manpower problems. Interview results, supplemented with historical data will be used to determine an approach for developing a working model, based on systems analysis concepts, for dealing with problems of manpower adjustment.

Status of Project: The first year's work of a projected 3-year study has been completed.

Preliminary Highlights of Findings: Work thus far has concentrated on identification of the problem and definition of the mechanisms and institutions involved in a manpower system. A study of factors affecting job market operations with emphasis on man-job matching was started. Job transition points in the individual's work career will be emphasized as the basis for further study of the factors that affect manpower adjustment subsystems. Analyses in the second year will focus on the interrelationships of these subsystems to the total manpower adjustment system.

^{*} Federal support of this project is also provided by the U.S. Office of Education, Department of Health, Education, and Welfare, the National Science Foundation, and the National Bureau of Standards, U.S. Department of Commerce.

1.1.61 TEXAS A&M UNIVERSITY COLLEGE STATION, TEX.

CONTRACT NO. 81-46-68-16

Principal Staff: Dr. Paul Miller and Dr. John M. Glasgow.

Project Title: The Role of Farm Labor Market Institutions in the Lower Rio Grande Valley of Texas

Objectives and Procedures: This study provides a pilot approach to obtaining a comprehensive picture of the labor recruitment process in the farm industry of the Lower Rio Grande Valley. Problems of decreasing demand for unskilled farm labor and shortages of trained technicians have characterized the increasingly mechanized farm industry. The situation is particularly severe in the Rio Grande Valley because of the high proportion of generally unskilled minority group members (primarily Mexican Americans), and the relatively heavy dependence on farm employment.

To establish a basis for recommending alternative policy approaches to these widespread agricultural problems, this study will analyze the labor recruitment process. It will identify and help determine the details of and factors affecting the unemployment, underemployment, and labor mobility of the Valley labor force, and attempt to isolate factors hindering job market adjustments. The study will also deal with special local problems resulting from day workers' commuting from Mexico, and the unusual concentration of farmworkers who winter in the Rio Grande Valley but work in other areas during the harvest season.

The effectiveness of farm labor institutions and organizations will be evaluated based on information obtained from recruiters, employers, and farmworkers. A group of community, business, labor, and government leaders will be interviewed to isolate the most important problems involved in recruiting labor in the area and the kind of information necessary for development of an adequate employment policy. A stratified sample of farmworkers and former farmworkers will be interviewed to determine their attitudes toward utilization of existing job market facilities and the need for new or modified institutional arrangements as well as their individual plans for remaining in the farm labor force.

Status of Project: The project will be completed during fiscal year 1970.

**1.1.62 THE W. E. UPJOHN INSTITUTE FOR
EMPLOYMENT RESEARCH
WASHINGTON, D.C.**

CONTRACT NO. 81-09-67-22

Principal Staff: Dr. Sidney Fine.

Project Title: The Feasibility of a Direct Method of Obtaining Manpower Demand Data

Objectives and Procedures: This study is testing an alternative method of collecting occupational data and comparing it with the job title method now used by the Bureau of Labor Statistics in its employment surveys of occupations in selected industries. With the experimental method, manpower data are being obtained directly from employers through interviews and mail questionnaires. Survey techniques are designed to yield objective job content information based on the functional classification system of the 1965 *Dictionary of Occupational Titles*.

A sample of firms in a single industry is first asked to complete forms similar to those used by the BLS in its occupational surveys. Then, during personal interviews, similar employment data are being collected. Classification is based on actual job content as described in the DOT. Data are being analyzed to determine if the experimental method is more effective. Subsequently, a variety of industries may be sampled to see if the experimental method can be adapted successfully for use with mail questionnaires.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.1.63 THE URBAN INSTITUTE
WASHINGTON, D.C.**

CONTRACT NO. 82-09-68-44

Principal Staff: To be assigned.

Project Title: The Urban Institute

Objectives and Procedures: Responding to the President's recognition of the need to create a research institute to study the problems of the Nation's urban areas, the Department of Labor, with several other Federal agencies concerned with urban prob-

lems, has provided support for the newly established Urban Institute.

The Urban Institute will conduct: (1) A broad-gage program of research of a general and long-range nature to obtain needed information and knowledge about urban life; and (2) specific research studies initiated in response to Manpower Administration requirements.

The first such specific study calls for the development of a transportation model based on a study of the commuting needs of the poor in ghetto areas in relation to employment opportunities both within the city and in its suburbs. The study will:

1. Examine the existing transportation system of a large U.S. city.
2. Analyze existing and potential employment opportunities in the metropolitan area.
3. Develop new and additional routes and modes of transportation for the needs of inner-city residents.
4. Analyze costs and benefits of suggested alternative transportation models, taking into account benefits from added income and employment, reduced welfare costs, etc.

Status of Project: A final report is expected in fiscal year 1970.

**1.1.64 WAYNE STATE UNIVERSITY
DETROIT, MICH.**

CONTRACT NO. 81-24-66-04

Principal Staff: Dr. Ross Stagner, Dr. Reuben Baron, and Dr. Alan Bass, Department of Psychology.

Project Title: The Role of Social Reinforcement Parameters in Facilitating Trainee Motivation, Learning, and Job Performance

Objectives and Procedures: This project seeks to identify the motivational conditions which will enable unemployed trainees to obtain maximum benefits from job retraining programs. An individual's idea of himself affects his reactions to rewards and punishments, and is also related to how much work he will do. This research is aimed at determining what methods of dispensing social rewards will be most effective in changing the self-impression and, therefore, the job performance of trainees.

The project was conceived as a series of interlocking laboratory and field experiments. Subjects for the study were trainees participating in ongoing projects conducted by local agencies of the U.S. Employment Service. Factors studied included level of past social deprivation, praise of the person versus praise of his performance, abstract versus concrete rewards, consistent versus sporadic rewarding, and the effect of rewards administered by the subject's peer group versus those administered by an authority figure (the experimenter or instructor). Dependent variables included changes in self-impression, performance in the laboratory tasks, and subsequent performance in the training situation and in jobseeking behavior and job performance.

Status of Project: A final report is scheduled for fiscal year 1969.

Preliminary Highlights of Findings: One experiment concerned the effects of types and sources of rewards. In one condition, the reward was given by the experimenter; in another condition, it was given by one peer; and in still another, it was given by three peers. Both positive and negative rewards were tested under these three conditions. In general, it would seem that positive rewards were more effective for the men than negative rewards. For the girls, on the other hand, the type of reward seemed less important; if anything, negative rewards were in some cases more effective.

On the quantitative tasks, the experimenter was apparently the most effective source of reward for the men. On the verbal task, however, the three-peer condition was more effective. The girls, however, performed best and their self-evaluation improved most when the source of reward was three peers. In the one exception, the objective task was performed best when the experimenter was the source of reward.

Another experiment concerned the relative effects on persistence, both in the presence and absence of an experimenter, of different sources of reinforcement given prior to the commencement of an insoluble task. In one condition, reinforcement was given by the experimenter; in another, by one peer; and in still another, no reinforcement was given at all. Preliminary findings indicated that subjects persisted longer at the insoluble puzzle when they had been reinforced by their peers.

Other preliminary findings suggested that individualized instruction as opposed to group instruction may

not always be desirable, and that praise of the person is more effective than praise of his performance, both in raising a trainee's self-impression and in improving his task performance.

1.1.65 WAYNE STATE UNIVERSITY DETROIT, MICH.

CONTRACT NO. 81-24-68-24

Principal Staff: Dr. Hjalmar Rosen, Department of Psychology.

Project Title: A Group Orientation Approach to Facilitating the Work Adjustment of the Hard-Core Unemployed

Objectives and Procedures: This study will analyze the effectiveness of a specially designed work orientation program based on group exchange of common experience as a means of integrating the hard-core unemployed into an industrial organization.

Fifty men with histories of unstable or otherwise unsatisfactory employment experiences will be randomly assigned to experimental and control groups. Experimental subjects will participate in professionally conducted group meetings structured to encourage free expression of attitudes and emotions growing out of their work and life situations. Through the development of friendships and a supportive work environment, it is anticipated that these workers will mutually facilitate their work adjustment and significantly reduce pressures to leave the job situation. Subjects in control groups will be exposed to a more traditional job orientation program.

The effectiveness of the experimental program will be gaged largely in terms of the turnover and work performance of members of the special group compared with subjects in the control groups. Additional data will include reports of events and attitudes related to work adjustment and underlying factors affecting decisions to leave the organization. Interviews conducted with coworkers, supervisory and management personnel, and union officials will provide further information.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.1.66 WAYNE STATE UNIVERSITY
DETROIT, MICH.**

CONTRACT NO. 81-24-68-35

Principal Staff: Dr. Hjalmar Rosen, Dr. Gerald Cooke, and Dr. Lynn B. Anderson, Department of Psychology.

Project Title: On-the-Job Orientation of Negro Skill Center Trainees and Their Supervisors

Objectives and Procedures: This study will analyze the effectiveness of an on-the-job orientation program instituted by a large public communications company. The program is intended to assist a group of disadvantaged Negro men and women, who have just completed a skill center training course, in making a successful transition into a company work force. This orientation will use role-playing, that is, group problem-solving sessions in which there is joint participation by trainees, their supervisors, management, and union committeemen. These sessions will extend over a period of 3 months.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.1.67 UNIVERSITY OF WISCONSIN
MADISON, WIS.**

CONTRACT NO. 81-53-68-41

Principal Staff: Dr. Gerald G. Somers and Dr. J. Kenneth Little, The Center for Studies in Vocational and Technical Education.

Project Title: Seminar on the Cost-Benefit Analysis of Manpower Programs

Objectives and Procedures: An international seminar on conceptual, analytical, and technical problems related to the cost-benefit analysis of manpower programs will be conducted by the University of Wisconsin in conjunction with Queen's University, Kingston, Ontario, Canada, at the Wisconsin campus in May 1969.

The seminar will explore methodological problems and seek ways to improve the concepts, methods, and techniques employed throughout the field of cost-benefit analysis.

Status of Project: A report is expected in fiscal year 1970.

**1.1.68 WOMEN'S BUREAU
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.**

CONTRACT NO. 81-08-08¹⁰

Principal Staff: Mrs. Mary Dublin Keyserling.

Project Title: National Survey of Child-Care Arrangements of Working Mothers

Objectives and Procedures: By means of questions on the *Current Population Survey* for February 1965, the project is securing details on types of child care arrangements and how they vary in cost relative to the age group served, as well as information on family income and education.

Status of Project: A final report is due in fiscal year 1969.

Preliminary Highlights of Findings: More than 6 million mothers who had at least one child under 14 living at home worked 27 weeks or more in 1964, either full or part time. These mothers had one-fifth of all U.S. children under 14. The proportion of mothers who were working was related to the age of children in the family: the older the children, the more likely the mother would be working.

**1.1.69 WOMEN'S BUREAU
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.**

CONTRACT NO. 81-08-22

Principal Staff: Mrs. Mary Dublin Keyserling.

Project Title: Women Workers: Their Special Training Needs

Objectives and Procedures: This project explores the major problems faced by women in the labor force. Emphasis is to be placed on economically disadvantaged groups and on those with special problems. One group in the latter category will be women who enter the labor force, leave to become housewives, and later

¹⁰ This project is being conducted jointly with the Children's Bureau, U.S. Department of Health, Education, and Welfare.

reenter the labor force. These women often need special counseling and guidance service as well as refresher or retraining courses. The project's report will contain a summary section highlighting implications for policy action.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.70 WOMEN'S BUREAU
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.

CONTRACT NO. 81-08-23

Principal Staff: Mrs. Mary Dublin Keyserling.

Project Title: Employment Opportunities for Women in Subprofessional Occupations

Objectives and Procedures: Subprofessional occupations which offer employment opportunities for women will be studied. Attention will focus on the growing number of technician occupations, as well as on such jobs as teacher aides, social worker aides, and library assistants, which require 2 or more years of education beyond high school. The study will furnish information on educational and skill requirements, job duties, and earnings.

Status of Project: Completion is scheduled for fiscal year 1969.

1.1.71 WOMEN'S BUREAU
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.

CONTRACT NO. 81-09-68-15

Principal Staff: Mrs. Mary Dublin Keyserling.

Project Title: Meeting Medical Manpower Needs: The Fuller Utilization of the Woman Physician

Objectives and Procedures: This conference was cosponsored by the American Medical Women's Association; the President's Study Group on Careers for Women; and the Women's Bureau, Wage and Labor Standards Division, and the Manpower Administration of the U.S. Department of Labor. The conference brought together outstanding physicians, deans of medical colleges, representatives of related professional associations, leaders in education and guidance, and others, for discussions on promoting fuller use of women physicians. The conference was held in Washington, D.C., in January 1968.

Status of Project: A report on the conference is in preparation and will be available in fiscal year 1969.

1.2 PROJECTS ACTIVE ON JUNE 30, 1968—Manpower Research Institutional Grants under the MDTA

This section describes the first 2 years' progress of colleges and universities conducting research programs under 3-year Manpower Research Institutional Grants. (Funds currently available do not permit support of any additional institutions.)

1.2.01 ATLANTA UNIVERSITY ATLANTA, GA.

GRANT NO. 91-11-66-60
91-11-67-31
91-11-68-63

Principal Staff: Dean Harding B. Young, Director, Center for Manpower Studies.

Major School or Department: Graduate School of Business Administration.

Research: Research at the Center for Manpower Studies has focused on the manpower problems of the Southeast, with particular emphasis on the problems of Negro manpower. A study of the employment opportunities for Negroes in health-related occupations has been completed. Another completed study measures the effects of MDTA training programs in Atlanta on employment and earnings of 1,062 program participants from 1963 through 1966.

Several research projects are presently underway. One, a study which parallels research projects underway in several other cities, examines the potential for teenage employment among businesses in the Atlanta Negro community. Another assesses small businessmen's interests in participating in the National Alliance of Businessmen's program for job training. Employment experiences are being examined in two studies: (1) Those of graduates of a Negro vocational high school in Atlanta; and (2) those of Negro college graduates in middle management positions. Additional research considers whether employment has kept pace with economic growth in Georgia and the Southeast.

Program: Under the Center's program, about 14 graduate students receive manpower fellowships annually to work toward master's degrees. Nine Master's of Business Administration (M.B.A.'s) have so far been awarded to fellowship recipients. The manpower-oriented curriculum has recently been increased from one research and reporting course to include courses on labor problems and industrial relations, industrial sociology, and the sociology of professions.

The Center has established close ties with the community and the region. A panel of experts from Atlanta

University, nearby colleges, and public schools has been created to advise the Center in development of its research and other activities. In addition, Center faculty members consult with such groups as the Urban Coalition and the Community Action Agencies in the Southeast, and participate in the Regional Manpower Policy Task Force for Vocational Rehabilitation.

In April 1968 the Center held a conference to identify regional manpower problems and stimulate research directed toward their solutions. Participants included Federal and local government officials and faculty members from 24 of the predominately Negro colleges in the area. Center staff intend to sustain contact with the faculty at these schools to aid development of their research activities. In addition, Center staff are increasingly involved in manpower research activities at other local colleges.

1.2.02 IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY AMES, IOWA

GRANT NO. 91-17-66-61
91-17-67-32
91-17-68-64

Principal Staff: Dr. Edward B. Jakubauskas, Director, Industrial Relations Center.

Major School or Department: Departments of Economics, Sociology, and Psychology.

Research: The number of areas of research activity at the Industrial Relations Center has been doubled. To the original three areas—health manpower, job vacancy and occupational employment forecasting, and managerial and leadership studies—three new areas of interest have been added. These are labor relations, manpower program evaluation, and labor force behavior.

Completed health manpower studies include an examination of nursing manpower demand and supply, development of a theoretical model for estimating health manpower requirements, and an examination of turnover, absenteeism, and labor force behavior of nurses. A combined research and action program has been undertaken in cooperation with health agencies in Iowa

and with added support from a pilot feasibility grant from the U.S. Office of Education. Under this program, a conference was held in March 1968 to develop plans for a comprehensive health manpower program in the State and region.

The second and third in a series of studies by Center faculty members on job vacancies in Iowa manufacturing have recently been published by the Center. A fourth report will appear late in 1968. A manpower forecasting study of occupational employment trends at the regional level has received partial funding from the Graduate College of Iowa State University (National Manpower Accounts Research).

Progress is being made on two leadership studies: (1) On components of effective supervision; and (2) on managerial style at three levels of supervision. In the area of labor relations, a major field study has been undertaken on the functions, utilization, supply of, and demand for arbitrators in labor disputes.

A completed manpower program evaluation study weighed the merits of on-the-job training for increasing the employment potential of older workers. Active studies include a cost-benefit analysis of Iowa's statewide on-the-job training program, and an evaluation of the Governor's youth employment program.

Labor force behavior studies include a continuing study of modes of withdrawal from active occupational roles by Iowa farmers, smalltown merchants, professionals, and factory workers age 50 and older.

Since the inception of the grant program, a total of 25 research reports have been published in the form of papers, articles, or books. These materials are distributed to concerned organizations and individuals, and to the 69 colleges, universities, and associations of higher education in the six-State Great Plains region, which are cooperating with the Center in research and program activities.

Program: Manpower specialists are being trained through a new master's degree program in industrial relations and through existing M.S. and Ph. D. programs in related fields. In the last 2 years, 10 graduate students have received some financial support from the Center, and four of these have received degrees. Two courses in manpower economics have been added to the curriculum since the Center's program began, and a course on manpower development problems of developing nations is being introduced.

Center faculty members contribute their knowledge and experience to numerous outside agencies. For ex-

ample, the Center Director was appointed by the Governor to a 4-year term on the Iowa Commission on the Aging. Faculty members have assisted the Iowa State Manpower Development Council—Office of Economic Opportunity in research, evaluation, and preparation of reports, proposals, and publications. In addition, the Center works with the Iowa Manpower and Job Market Information Committee in developing and publishing job vacancy information for the State.

The Center held nondegree Summer Manpower Research Institutes in June 1967 and 1968 to promote research activity at colleges and universities in the six-State Great Plains region. It also helped develop a May 1968 conference on consumer education and protection for State officials.

1.2.03 UNIVERSITY OF MAINE ORONO, MAINE

GRANT NO. 91-21-66-63
91-21-67-34
91-21-68-66

Principal Staff: Dr. David H. Clark, Director, Manpower Research Project.

Major School or Department: Departments of Psychology and of Sociology and Anthropology; College of Business Administration, including Economics and Business Management.

Research: Manpower Research Project investigations have focused on the measurement and causes of underutilization of the labor force within different areas of the State. Researchers have completed a pilot study of underutilization of men, age 18 to 44, living in two towns in north central Maine and are now interviewing randomly selected men of the same age in communities throughout the State.

A number of studies are presently underway on the relationship between underutilization and migration. One project concerns migration and occupation of University of Maine graduates at 5-year intervals since 1940. Other studies assess the issue of migration for residents affected by the closing of a granite quarry and two paper mills in the State. Still other research projects concern management's attitudes toward government training programs, measurement of the type of motivation that is based on feelings of competence,

and recruitment patterns practiced by personnel managers in large Maine business establishments.

Program: A two-semester manpower seminar involves graduate students from a number of disciplines in manpower studies. As research assistants, students participate in the Project's studies—full time during the summer and part time during the academic year. Seven master's degrees have been awarded so far to participants in the Project. Of the 10 students currently active in the Project, two are working toward Ph. D.'s in psychology.

Project faculty members are involved in a number of State activities. At the request of the Governor's Manpower Advisory Committee, and financed by Economic Development Agency funds, Project members are projecting occupation, skill, and training or entry requirements for Maine's manufacturing sector in 1970 and 1975. Since the inception of the Project, supportive work has been provided for Portland's Model Cities program.

1.2.04 NORTH CAROLINA STATE UNIVERSITY, RALEIGH RALEIGH, N.C.

GRANT NO. 91-35-66-65
91-35-67-36
91-35-68-68

Principal Staff: Dr. Robert M. Fearn, Institutional Representative.

Major School or Department: Department of Economics.

Research: Research studies at NCSU and at the two universities connected with its manpower program (Duke University and the University of North Carolina at Chapel Hill) cover a broad range of manpower problems. Material from a study of lifetime allocation of leisure, income, and work formed the basis for testimony by the principal investigator before the U.S. Senate's Special Committee on Aging in December 1967. The combined papers on this subject are being prepared for publication.

NCSU projects recently or nearly completed include: (1) A comparison of tariff protection afforded U.S. industries against foreign competition and the skills and wage rates of workers by industry; (2) a

study revealing the extent of racial differences in methods of job search among residents of Raleigh; and (3) an assessment of the economic problems connected with administration of an employee retirement fund.

Two NCSU studies deal with teenagers. A cross-sectional study of the labor force and school participation of teenagers has been completed. An examination of the characteristics and determinants of unemployment among teenagers, particularly Negroes, has been undertaken by NCSU faculty members, in cooperation with researchers from North Carolina Agricultural and Technical College at Greensboro.

At the request of the Governor's Good Neighbor Council, NCSU researchers are participating in a study of racial practices in Wake County, N.C. Other new studies are investigating: (1) The economic and social determinants of the availability of health manpower and facilities in various regions of the country; (2) the relationship, if any, between the present industrial structure of the South and past underinvestment in human resources in that area; and (3) the vocational training offered by the State community college system compared to employers' expressed manpower needs.

Program: NCSU has developed its Research Workshop into a valuable means of communication about inhouse research plans and results among professors and graduate students at NCSU, Duke University, and the University of North Carolina at Chapel Hill. Participation in the Workshop and completion of the recently established courses in human capital and in labor economics and manpower problems are considered adequate preparation for NCSU's newly approved Ph. D. field of specialization—labor economics and human resource development.

NCSU has awarded five manpower fellowships and Duke University has awarded three such fellowships to graduate students. During the last 2 years, four Ph. D.'s and five master's degrees have been awarded to participants in the manpower program at the three cooperating universities.

Faculty members involved in manpower research at these universities have engaged in publication of books and articles, preparation of materials for the Equal Employment Opportunity Commission and the President's Commission on Rural Poverty, and participation in the December 1967 meeting of the Industrial Relations Research Association. One graduate student in the manpower program has also written an article for publication.

**1.2.05 OKLAHOMA STATE UNIVERSITY
OF AGRICULTURAL AND APPLIED
SCIENCE, RESEARCH FOUNDATION**

STILLWATER, OKLA.

GRANT NO. 91-38-66-64
91-38-67-35
91-38-68-67

Principal Staff: Dr. John C. Shearer, Director, Manpower Research and Training Center.

Major School or Department: College of Business, Department of Economics.

Research: Center researchers have recently completed the first comprehensive study on occupational education beyond high school in Oklahoma. This study was intended to assist State officials in planning and developing a statewide occupational education system for youth and adults as an integral part of a planned manpower development program.

A newly established cooperative arrangement with the University of Oklahoma Medical Center has encouraged Center research in health manpower problems. In addition to conferring on various manpower research problems, the two institutions have arranged for the Medical Center to supply the University, for its analyses, with statewide data on 23 health occupations.

A Center study on the labor force participation rates in the Ozarks region has recently been completed under a Manpower Administration research contract (see 2.1.15). Already or nearly completed are dissertations on institutional vocational training received by American Indians (see 2.2.09) and on commuting and demographic patterns associated with the work force at a nearby Air Force base. A feasibility study was recently begun to develop attitude scaling instruments for selected Indians and Negroes in rural Oklahoma who migrate to certain urban areas.

Some Center research projects are funded by outside agencies. For the U.S. Office of Education, Center faculty are developing a program to train people for the new occupation of electromechanical technician. Under the auspices of the Industrial Development and Park Department of Oklahoma, Center staff are developing a data bank containing an occupational information system.

Several publications have emerged from the research of Center faculty members. Other utilization of research includes testimony given by the Center Director before

the Regional and Technical Programs Subcommittee (House Committee on Government Operations) with regard to the drain of scientific manpower from the developing countries.

Program: Under the Center's internship program, Manpower Fellows fulfill the degree requirements of their own disciplines. They work closely with the Center staff on continuing manpower research projects during the academic year. During summers, Fellows work full time on their research projects or in off-campus "action-research" jobs (developed by the Center) at private firms or government installations. As part of the Center's master's degree curriculum each term, Fellows participate in a seminar in which they hear presentations by visiting manpower authorities from academic institutions, government agencies, and private organizations. Other courses introduced in conjunction with the manpower program concern manpower analysis, occupational analysis, and manpower economics.

Ten Fellows have completed master's degrees, and one student has earned a Ph. D. in Economics with a specialty in manpower economics. Center staff have found that Fellows who have completed their degree programs are committing themselves to manpower-related activities. At the beginning of the 1968-69 year, 14 graduate students will begin work under Manpower Fellowships, and one Fellow will start her second year of study.

In May 1968 Oklahoma State University held a national manpower conference on "The Rural-Urban Population Shift—A National Problem." This conference was sponsored by The Ford Foundation; Senator Fred R. Harris, Chairman, U.S. Senate Subcommittee on Government Research; the Manpower Research and Training Center; and the OSU College of Business. The conference brought together 700 persons from universities, research institutes, business, labor, and all levels of government to discuss policy-oriented research on the problem.

**1.2.06 TEMPLE UNIVERSITY
PHILADELPHIA, PA.**

GRANT NO. 91-40-66-62
91-40-67-33
91-40-68-65

Principal Staff: Dr. Louis T. Harms, Director, Manpower Research Institutional Grant Program.

Major School or Department: Department of Economics, School of Business Administration, together with the College of Liberal Arts and College of Education.

Research: Much of the manpower center's research has focused on urban problems. As part of a major consumer study, food store prices in ghetto and non-ghetto areas of Philadelphia have been examined. In another study, ghetto residents have been trained to survey Negro or Puerto Rican families on consumer behavior and budget data. Employment problems in ghetto-area firms with high and low concentrations of workers are being examined, and research is underway on labor force nonparticipation of males in urban core areas, a project funded by a Manpower Administration grant (see 1.4.36).

Industry and regional studies constitute other areas of research. A major study on manpower in Pennsylvania was released by the Governor in 1968. Projects underway include an examination of Negro employment in the hotel industry, manpower projections in the banking industry, a survey of environmental health manpower in two cities, and a study of the geographical distribution of human service occupations, such as health care and public administration.

For the program "Five Seminars on Emerging Sectors of Collective Bargaining," faculty members have done research and prepared papers on the manpower implications of collective bargaining in hospitals, agriculture, police and firefighting fields, public education, and the performing arts. Based on these papers and other research, 13 articles and books have been published by manpower center investigators.

Program: Fourteen graduate students have received fellowships or assistantships in the first 2 years of the manpower program, and another 14 are receiving such aid in the third year. The School of Business Administration offers both manpower studies and urban economics as areas of concentration for the Ph. D. in economics, and several students in these areas have completed their doctoral course work. In the last 2 years, two students participating in the manpower program have received master's degrees in economics, and another nine have elected to proceed directly to the doctoral degree without writing a master's thesis.

Temple University has introduced five manpower-related courses to its curriculum: Employment, Unemployment, and Public Policy; Income Distribution and Public Policy; Problems of Technological Change; The Ghetto—Problems and Solutions; and The Man-

power Outlook. During the 1968-69 academic year, courses in the economics of education and in social and economic foundations of education are also being offered. The manpower center is recommending the organization of degree programs at the School of Business Administration in the fields of health care administration, information science, and problems of technological change.

Temple's 1967-68 seminar program, "Five Seminars on Emerging Sectors of Collective Bargaining," brought together an average of 30 specialists for each of the 1½-day sessions. About 150 persons attended another seminar, the "Emerging Role of Women in the World of Work," at which papers were presented by faculty members of several colleges and by some outstanding women. A seminar on the methods of employing mental retardates was held in May 1968.

Manpower program faculty are assisting the Philadelphia Opportunities Industrialization Center in the training of personnel for centers in other cities. Faculty members have also conducted a number of training programs for 500 persons employed in offices of the Bureau of Employment Security and for personnel directors in private firms involved in equal opportunity employment programs.

1.2.07 VIRGINIA STATE COLLEGE, NORFOLK DIVISION NORFOLK, VA.

GRANT NO. 91-49-66-66
91-49-67-37
91-49-68-69

Principal Staff: Dr. J. H. Gadson, Jr., Director, Manpower Research Institute.

Major School or Department: Departments of Business Administration, Industrial Education, Economics, Psychology, Sociology, and Geography-History.

Research: Research has centered on exploration of the underutilization of manpower in the Tidewater, Va., area. A pilot study was conducted on the causes and extent of manpower utilization in a Government installation and in a private industrial firm in Norfolk. Based on findings from this study, an areawide study of 620 workers and representatives of 100 industries has been undertaken. At the request of the President's Committee on Employment of the Handicapped, the

questionnaire being used includes questions on utilization of the handicapped, and resulting information will be sent to that Committee for its use. The Institute's study focuses on utilization of other special groups as well—women, older workers, and nonwhites.

Program: Through an interdisciplinary research seminar, senior students have become involved in the manpower field. Many of their recent papers have dealt with manpower training, placement, and promotion. Seminar students recently acted as assistant counselors and guides for a "job fair" sponsored by the Norfolk Chamber of Commerce.

A course on manpower problems and potentials will be added to the College's manpower-related curriculum under sponsorship of the Sociology and Economics Departments. In the first 2 years of the program, bachelor's degrees have been awarded to six students who

have participated in the manpower research seminar. One of these students is pursuing graduate studies in urban planning.

Institute researchers have established and maintained contacts with persons having manpower interests in other academic institutions, industry, government, and labor. Publication of the bimonthly *Manpower Research Newsletter*, which describes the Institute's current activities, was recently begun. To help the Institute identify local manpower problems and to suggest research directed at solving these problems, the Institute has established an advisory committee composed of seven area management and labor leaders.

The Institute conducted symposia in 1967 and 1968 to involve interested Tidewater area persons in manpower problems. The second symposium, attended by more than 100 leaders, focused on job success and labor turnover problems in the area.

1.3 PROJECTS ACTIVE ON JUNE 30, 1968—Doctoral Dissertation Grants under the MDTA¹¹

1.3.01 UNIVERSITY OF ARKANSAS FAYETTEVILLE, ARK.

GRANT NO. 91-04-66-70

Doctoral Candidate: Earl Wright, College of Business Administration.

Sponsor: Dr. John M. Peterson.

Dissertation: Industrial Recruiting Experience in Small City Job Markets

Objectives and Procedures: This study is determining sources of labor available to new manufacturing firms in small cities in rural regions and the impact of new plants on recruiting practices and labor supply of other employers in the area.

Managers and employers of new industries are being interviewed to obtain information on skill level, mobility of workers, and sources of labor. Other employers in the area are being questioned to determine the effect of new plants on labor supply conditions.

Estimated Completion Date: Fiscal year 1969.

1.3.02 BRANDEIS UNIVERSITY WALTHAM, MASS.

GRANT NO. 91-23-66-59
91-23-67-45

Doctoral Candidate: Jane Gaudette Jones, The Florence Heller Graduate School for Advanced Studies in Social Welfare and Heller Research Center.

Sponsor: Dr. Stephen J. Miller.

Dissertation: The Career Patterns of Women Physicians

Objectives and Procedures: The study is concerned with identifying the factors which motivate women to enter the medical profession and the barriers which they must overcome in the pursuit of their goal.

A sample of women students, dropouts, and graduates of the medical schools of Boston University, Tufts University, Radcliffe College, and Harvard University is being interviewed about career decisions and about

personal and professional career patterns. Key persons in medical education are also being interviewed, in order to delineate the role of women in medicine in the future.

Estimated Completion Date: Fiscal year 1969.

1.3.03 BRANDEIS UNIVERSITY WALTHAM, MASS.

GRANT NO. 91-23-68-45

Doctoral Candidate: Lynda L. Holmstrom, Department of Sociology.

Sponsor: Dr. Everett C. Hughes.

Dissertation: The Intertwining Career Patterns of Husbands and Wives in Certain Professions

Objectives and Procedures: This study will examine the factors enabling or preventing the continued labor force participation of married women with Ph. D. degrees. Particular attention will be given to the influence of the husbands' work situations and attitudes in determining the employment status of these women. Data will be examined in light of some of the marriage-career stereotypes prevalent in sociological literature and the structural features of our society which tend to produce conflict between career and family pursuits. Fifteen wives pursuing their careers and 15 wives curtailing their careers will be interviewed, together with their husbands. The sample, to be drawn mainly from professional directories, will consist of women whose professions typically fall within the humanities or sciences, who are 35 years of age or older, who are presently married, and who live within the Greater Boston area.

Estimated Completion Date: Fiscal year 1969.

1.3.04 BRANDEIS UNIVERSITY WALTHAM, MASS.

GRANT NO. 91-23-68-46

Doctoral Candidate: Donald W. Light, Jr., Department of Sociology.

Sponsor: Dr. Morris S. Schwartz.

Dissertation: The Training of Psychiatrists

¹¹ Requests for information concerning these dissertations should be directed to the doctoral candidates.

Objectives and Procedures: This study will explore the training of psychiatrists in terms of values inculcated, skills acquired, and careers chosen. It will describe in detail the educational experiences of psychiatric residents in a particular training program, and examine the program's organization in view of the profession's apparent split between rigorous physiological research and community psychiatry.

The study setting will be the Harvard program at the Massachusetts Mental Health Center, which combines a psychoanalytic orientation with physiological and community aspects of psychiatry. Participant observation will be the principal method of investigation, supplemented by interviews and questionnaires developed on the basis of specific problems confronted in field work. Aspects of the Harvard program will be compared to training programs at several other U.S. institutions.

Estimated Completion Date: Fiscal year 1970.

**1.3.05 UNIVERSITY OF CALIFORNIA,
BERKELEY
BERKELEY, CALIF.**

GRANT NO. 91-05-68-04

Doctoral Candidate: John S. Spier, Department of Sociology.

Sponsor: Dr. Robert Blauner.

Dissertation: Racial Integration in the Railroad Operating Crafts

Objectives and Procedures: Conditions which cause Negroes to succeed or fail in a given employment situation are being examined in this study. Railroad operating crafts in the San Francisco Bay area, virtually closed to nonwhites until about 5 years ago, provide the work setting for exploring the costs of problems Negroes can expect to face when a previously all-white industry is opened to them.

The researcher is attempting to interview the approximately 75 Negroes who have been hired in the railroad operating crafts in the San Francisco Bay area over the

past 5 years (whether still employed or not). These interviews cover job history and aspirations, education, family background, and reasons for leaving the railroad (where applicable). Comparative data are being collected from 25 white employees in the craft, who are queried in addition concerning their views of Negroes as coworkers and whether their attitudes have changed since the preintegration period. Additional material is being provided through interviews with local union and company officials.

Estimated Completion Date: Fiscal year 1969.

**1.3.06 UNIVERSITY OF CALIFORNIA,
BERKELEY
BERKELEY, CALIF.**

GRANT NO. 91-05-68-05

Doctoral Candidate: Ivan H. Light, Department of Sociology.

Sponsor: Dr. Martin A. Trow.

Dissertation: Self-Employment and Education as Avenue of Social Mobility for Chinese, Japanese, and Negroes in Urban Areas

Objectives and Procedures: This is a comparative and historical examination of the roles of business proprietorship and of education in the social mobility of three nonwhite groups: Chinese, Japanese, and Negroes. The researcher is determining rates of mobility through self-employment and through education for each group at different historical points. The causes and consequences of the predominance of proprietorship or of education as a means of social ascent are being considered in view of the present difficulties faced by each group.

The study is limited primarily to members of the three minority groups in the San Francisco Bay area. Historical research, using library sources and public records, is being supplemented by interviews with Chinese, Japanese, and Negro leaders in the area.

Estimated Completion Date: Fiscal year 1969.

**1.3.07 UNIVERSITY OF CALIFORNIA,
BERKELEY
BERKELEY, CALIF.**

GRANT NO. 91-05-68-70

Doctoral Candidate: Robert J. Flanagan, Department of Economics.

Sponsor: Dr. Lloyd Ulman.

Dissertation: An Analysis of International Differences in Non-Cyclical Unemployment

Objectives and Procedures: This study will determine why the rate of unemployment associated with price stability is considerably higher in the United States than in some European countries. Several hypotheses on labor policies and seasonal, frictional, and structural unemployment will be tested to determine their influence on international differences in unemployment.

Wages, profits, cost of living, and aggregate unemployment rates have been obtained for Great Britain, Sweden, and the United States, from published data. Unpublished data will be obtained from the central statistical bureaus in London and Stockholm, and from the statistical branches of the Organisation for Economic Co-operation and Development and the International Labour Organisation.

Estimated Completion Date: Fiscal year 1969.

**1.3.08 UNIVERSITY OF CALIFORNIA,
BERKELEY
BERKELEY, CALIF.**

GRANT NO. 91-05-69-01

Doctoral Candidate: Jeffrey M. Schevitz, Department of Sociology.

Sponsor: Dr. Harold L. Wilmsky.

Dissertation: Social and Psychological Impact of Worklife Instability

Objectives and Procedures: This study will examine the long-term social and psychological impact of

varying amounts of worklife instability on engineers and scientists and on skilled workers in the defense and commercial sectors of the economy. Worklife instability is defined as the downgrading, frequent job changes, or layoffs resulting from technological obsolescence or recurrent cancellation of defense contracts. The study will attempt to determine ways of minimizing the negative effects of worklife instability.

The researcher postulates that the primary determinants of an individual's response to worklife instability are his attribution of blame for the instability; his career orientation; and aspects of the work role, organization, and industry within which he locates reemployment. Information on these aspects and on work histories during the last 5 years will be drawn from a mail survey of 1,200 engineers and scientists—half doing defense work and half doing commercial work—and of 1,200 skilled workers split between defense and commercial work.

Estimated Completion Date: Fiscal year 1970.

**1.3.09 UNIVERSITY OF CALIFORNIA,
LOS ANGELES
LOS ANGELES, CALIF.**

GRANT NO. 91-05-66-09
91-05-67-18

Doctoral Candidate: Robert Singleton, Department of Economics.

Sponsor: Dr. Jack Hirshleifer.

Dissertation: Labor Force Composition and the Minimum Wage

Objectives and Procedures: The proposition that an increase in the minimum wage causes unemployment among disadvantaged workers is being tested.

Data from the U.S. Department of Labor and the Social Security Administration are being analyzed to determine ability of employers to find alternatives to wage increases, such as early retirement or discharge of marginal workers.

Estimated Completion Date: Fiscal year 1969.

**1.3.10 UNIVERSITY OF CALIFORNIA,
LOS ANGELES
LOS ANGELES, CALIF.**

GRANT NO. 91-05-68-73

Doctoral Candidate: Gerald I. Susman, Graduate School of Business Administration.

Sponsor: Dr. Louis E. Davis.

Dissertation: The Impact of Automation on the Increasing Need for Managerial Skills at the Work Crew Level

Objectives and Procedures: This study will consider the functioning of work crews in highly automated, continuous-process industries. Several hypotheses will be tested: (1) That allocation of tasks within the work crew occurs in such a way that all workers become multiskilled; (2) that the crew will allocate the most skilled tasks to the most qualified man; (3) that the crew's criteria of competence will differ from management's; and (4) that such nonskill criteria as seniority or personality may operate in the crew members' task allocation decisions.

The study will focus on a southern California oil refinery which employs work crews to operate crude oil distillation towers. Data will be drawn from questionnaires administered to crew members and management personnel, and from personnel files.

Estimated Completion Date: Fiscal year 1969.

**1.3.11 THE CATHOLIC UNIVERSITY OF
AMERICA
WASHINGTON, D.C.**

GRANT NO. 91-09-68-30

Doctoral Candidate: Rev. Victor Salandini, Department of Economics.

Sponsor: Dr. Leonard F. Cain.

Dissertation: The Socioeconomic Shortrun Effects of the Termination of Public Law 78 on the California Farm Labor Market for 1965-1967

Objectives and Procedures: This study will investigate some effects of the 1964 repeal of Public Law 78, which allowed Mexican nationals to enter the United States to work on a temporary basis. It will trace the role of Public Law 78 in the California farm job market, and explore the reasons for its termination and the resulting controversy. The study will assess the effects of the reduced farm labor supply available after the law's termination on farm employment, wages, mechanization, and other economic aspects. Socioeconomic effects of this termination, in such areas as working conditions, unionization, and employer attitudes toward farmworkers, will be described and evaluated. Data will be drawn largely from published and unpublished materials, supplemented by questionnaires and interviews with growers, union leaders, and others.

Estimated Completion Date: Fiscal year 1969.

**1.3.12 UNIVERSITY OF CHICAGO
CHICAGO, ILL.**

GRANT NO. 91-15-66-21
91-15-67-22

Doctoral Candidate: Frank H. Maier, Department of Economics.

Sponsor: Dr. T. W. Schultz.

Dissertation: An Economic Analysis of Adoption of Mechanical Cotton Harvesters

Objectives and Procedures: The objectives are to determine the changes in the use of farm labor following the adoption of mechanical cotton harvesters, the factors underlying the increasing use of mechanical cotton harvesters, the causes of the irregular pace of adoption of this labor-saving device among areas and over time, and the likely extent of further mechanization of cotton harvesting.

Profitability of use of the mechanical cotton harvester is being ascertained by obtaining and analyzing data on supply and cost of farm labor in comparison to cost of mechanical harvesting. Further mechanization will be estimated on the basis of findings.

Estimated Completion Date: Fiscal year 1969.

**1.3.13 UNIVERSITY OF CHICAGO
CHICAGO, ILL.**

GRANT NO. 91-15-68-76

Doctoral Candidate: Laurence E. Devlin, Department of Education.

Sponsor: Dr. William S. Griffith.

Dissertation: Participation in Adult Education and Occupational Mobility

Objectives and Procedures: This study will consider whether there is a positive relationship between participation in formal adult education courses and occupational mobility. Information will be gathered on the experience of 200 employed adult males during a 5-year period. Interviews will be conducted with samples drawn from each of four groups, classified by their awareness of and participation in adult education courses. Subjects will either be residents of a blue-collar suburb of Chicago, where a junior college adult education program is located, or be registrants in that program.

Interviews will focus on the incidence of an individual's participation in adult education courses, the number of his job moves, and the socioeconomic level of all his job moves. Secondary data on demographic characteristics, occupational perceptions, early educational experiences, and social behavior will also be collected.

Estimated Completion Date: Fiscal year 1969.

**1.3.14 CLAREMONT GRADUATE SCHOOL
CLAREMONT, CALIF.**

GRANT NO. 91-05-68-49

Doctoral Candidate: William H. Lawson, Department of Economics.

Sponsor: Dr. Paul Sultan.

Dissertation: Short-Term Manpower Projections for Certain Entry-Level Occupational Positions in Selected Industries in Ventura County, California

Objectives and Procedures: This pilot study will examine problems of adapting a national manpower projection technique, the industry-occupational matrix

of the Bureau of Labor Statistics, to the local level. The research setting will be Ventura County, Calif., an area which has rapid growth potential. Using the industry-occupational matrix approach, short-term projections of demand in three selected service industries will be developed for the period from mid-1965 to mid-1968 for six entry-level jobs requiring less than a bachelor's degree. Comparison of these projections with actual employment figures will provide a measure of the validity of this method of projecting local manpower needs. This approach will also be evaluated through comparisons of these projections with those developed through other projection techniques.

Estimated Completion Date: Fiscal year 1969.

**1.3.15 COLUMBIA UNIVERSITY
NEW YORK, N.Y.**

GRANT NO. 91-34-66-31

Doctoral Candidate: Myron D. Fottler, Graduate School of Business.

Sponsor: Dr. James W. Kuhn.

Dissertation: Training of Nonprofessional Manpower in New York City Hospitals

Objectives and Procedures: The study is evaluating training needs and training effectiveness of non-professional hospital workers, who account for most of the employment in the medical services industry. The emphasis is on those occupations for which the MDTA has trained the greatest number nationally—practical nurse, nurse aide, and orderly.

Training needs are being determined by examining the relationships among wage rates, necessary skills, sources of manpower supply, and occupational shortages. The evaluation of training effectiveness is being approached through cost-benefit analysis.

Estimated Completion Date: Fiscal year 1969.

**1.3.16 COLUMBIA UNIVERSITY
NEW YORK, N.Y.**

GRANT NO. 91-34-66-37

Doctoral Candidate: Harold Oaklander, Graduate School of Business.

1.3 Active Dissertation Grants

Sponsor: Dr. Ivar Berg.

Dissertation: Some Unanticipated Effects of Advanced Education on a Critical Manpower Resource, the Inservice Teacher

Objectives and Procedures: The primary objective is to show the relationship between level of education and work satisfaction of inservice public school teachers. The assumption of educational policy concerning certification requirements and salary schedules is that advanced education for all public school teachers is automatically beneficial. The author is testing the validity of this assumption by obtaining information about the effects of the requirements for graduate education upon the turnover rate of teachers.

Estimated Completion Date: Fiscal year 1969.

1.3.17 COLUMBIA UNIVERSITY NEW YORK, N.Y.

GRANT NO. 91-34-67-44

Doctoral Candidate: Thomas F. Wilson, Department of Economics.

Sponsor: Dr. Arthur F. Burns.

Dissertation: Labor Force Participation and Business Fluctuations: An Analysis by Cyclical Stages

Objectives and Procedures: This investigation explores some aspects of the cyclical behavior of the labor force in order to provide information not now available from most usual types of regression analyses of labor force participation and business fluctuations. The behavior of the labor force during the postwar decades as a whole, and for cyclical stages in particular, is being analyzed. Using household and establishment data for the years 1948-1966, and total hours worked as the indicator of tightness in the job market, deviations of the labor force participation rate from trend are being calculated and analyzed for stages of expansion and contraction.

Estimated Completion Date: Fiscal year 1969.

1.3.18 COLUMBIA UNIVERSITY NEW YORK, N.Y.

GRANT NO. 91-34-68-20

Doctoral Candidate: Carol A. Brown, Department of Sociology.

Sponsor: Dr. Terence K. Hopkins.

Dissertation: Patterns of Recruitment and Career Development of Health Technicians

Objectives and Procedures: This project will examine patterns of recruitment and career development of health technicians as a case study in the relationship of social and economic marginality. This concept of marginality is based on the fact that adult white males compose the central core of American society, including the American labor force. All other groups—women, nonwhites, youth, and the aged—have non-central or marginal social status. Economically marginal occupations are generally characterized by low pay relative to the skill demanded, limited promotion opportunities, skill requirements not readily transferable to more lucrative work, and short-term employment prospects (in that their pursuit as a lifetime career is not encouraged). Hospital technicians have been selected for this study because they are in a typically marginal occupation, most are female, and some are nonwhite.

The hypothesis that social noncentrality tends to be reinforced by participation in economically marginal jobs will be tested by an analysis of data on technicians' demographic characteristics, educational and other socioeconomic background, work experience, channel of recruitment, career motivation, and present job characteristics and satisfaction. A sample of current and former employees classified as X-ray technicians, and technicians in new specialty fields from two rural, two urban, and two suburban hospitals will be interviewed. Data from their job applications will also be utilized.

Estimated Completion Date: Fiscal year 1969.

1.3.19 COLUMBIA UNIVERSITY NEW YORK, N.Y.

GRANT NO. 91-34-68-28

Doctoral Candidate: Marjorie L. Hanson, Department of Economics.

Sponsor: Dr. Gary S. Becker.

Dissertation: The Effect of Welfare Payments on Labor Force Participation

Objectives and Procedures: This study will test the theory that labor force participation rates of low-income groups will decline with an increase in the adequacy of welfare programs. It will examine the Aid to Families with Dependent Children (AFDC) program, which offers a clear choice between work and leisure, because any income of AFDC eligibles from job market activity is in effect taxed 100 percent.

Data on family income, labor force participation, unemployment, education, and age, broken down by race and sex, will be drawn from the lower income census tracts enumerated in the 1960 census for standard metropolitan statistical areas. Welfare data will be obtained from the States.

Estimated Completion Date: Fiscal year 1970.

1.3.20 COLUMBIA UNIVERSITY NEW YORK, N.Y.

GRANT NO. 91-34-68-47

Doctoral Candidate: Sally T. Hillsman, Department of Sociology.

Sponsor: Dr. Terence K. Hopkins.

Dissertation: Induction into the Apparel Industry: A Study of Young Negro and White Workers

Objectives and Procedures: This project will consider whether and to what extent education equalizes job opportunities for minority groups. It will focus on: (1) The employment experience of different ethnic group graduates of the same curriculums at the High School of Fashion Industries in New York City; (2) the influence of the school's guidance and placement process in channeling students into various paths of the job market; (3) employer and union practices in the job market; and (4) the subjective expectations of jobseekers that affect their career choices.

Three basic types of data will be collected and analyzed: (1) Statistical material on employment and earnings obtained through the Social Security Admin-

istration; (2) qualitative material obtained through interviews with the High School of Fashion Industries, New York State Employment Agency, employer, and union personnel; and (3) information on family and background characteristics, work history, job aspirations, and attitudes toward job prospects, which will be obtained through questionnaires administered to the senior class and to recent graduates of the school.

Estimated Completion Date: Fiscal year 1969.

1.3.21 CORNELL UNIVERSITY ITHACA, N.Y.

GRANT NO. 91-34-68-12

Doctoral Candidate: Allan D. Spritzer, New York State School of Industrial and Labor Relations.

Sponsor: Dr. Felician F. Foltman.

Dissertation: An Analysis of Trade Union Sponsored Programs of Occupational Training in the U.S. Maritime Industry

Objectives and Procedures: This study will explore the nature, scope, and results of trade union sponsored programs of occupational training, retraining, and upgrading in the U.S. offshore shipping industry, and will attempt to develop measures of success in these programs.

Detailed information regarding training objectives, procedures, and results will be gathered through personal interviews with union officials, employer representatives, and training administrators connected with five union conducted training programs. Interviews will also be conducted with officials of other maritime unions which have initiated less extensive training programs, as well as with some unions which have initiated none at all. Data on personal and employment characteristics of current trainees and training program graduates will be obtained from union and Coast Guard records. Personal interviews with representative samples will be supplemented by mail questionnaires where necessary. Shipping industry employers and government officials will also be interviewed to provide additional criteria for measuring the effectiveness of union conducted training programs.

Estimated Completion Date: Fiscal year 1969.

1.3.22 CORNELL UNIVERSITY ITHACA, N.Y.

GRANT NO. 91-34-68-14

Doctoral Candidate: Eliot S. Orton, Department of Economics.

Sponsor: Dr. George H. Hildebrand.

Dissertation: Components of the Demand for Inexperienced Labor

Objectives and Procedures: This study will describe the demand for inexperienced workers in a single geographic labor area. It will seek to identify the conditions under which employers hire greater or lesser proportions of inexperienced labor, and to give some indication of the bases for these hiring decisions.

Data will be collected by surveying a random sample of the private firms in Onondaga County (where Syracuse, N.Y., is located) which employ 25 or more workers. For the period 1961 to the third quarter of 1967, the following information will be collected from each firm: Number of accessions of permanent employees; proportion of these who were inexperienced in the broad occupational category for which the worker was hired; and the wage rate at which each accession was entered on the payroll. In addition, the analysis will take into account variations in the rate of unemployment in the Syracuse labor area and in legal minimum wage rates (State and Federal).

Estimated Completion Date: Fiscal year 1969.

1.3.23 CORNELL UNIVERSITY ITHACA, N.Y.

GRANT NO. 91-34-68-51

Doctoral Candidate: Howard G. Foster, New York State School of Industrial and Labor Relations.

Sponsor: Dr. Donald E. Cullen.

Dissertation: Labor Supply in the Construction Industry: A Case Study of Upstate New York

Objectives and Procedures: This project will attempt to describe, analyze, and evaluate the sources,

development, and allocation of manpower in upstate New York's construction industry. Issues to be examined include apprenticeship programs and other sources of manpower supply, hiring practices, and shortages in the various crafts.

The study will focus on large-scale building construction in several upstate New York communities, selected for their diversity in size, job market flexibility, and degree of union organization. Data will be collected through interviews with labor, management, and government officials, and through examination of their relevant records. These data may be supplemented by questionnaires sent to a sample of tradesmen, and by State and Federal agency materials.

Estimated Completion Date: Fiscal year 1969.

1.3.24 CORNELL UNIVERSITY ITHACA, N.Y.

GRANT NO. 91-34-68-71

Doctoral Candidate: Robert J. Hines, Department of Economics.

Sponsor: Dr. George H. Hildebrand.

Dissertation: Econometric Model of Labor Supply in Buffalo Market Based on Times Series Contour Analysis

Objectives and Procedures: This study will test the hypothesis that a firm whose employment expansion exceeds the average growth rate of similar local firms will display a higher rate of advance in its entry-level wages than the average rate of wage increase among all firms in the group. Individual firms will be considered in terms of the local labor area, and in terms of groups (contours) sharing such elements as relationship with common unions or similar technology.

Employment and wage data over a 10-year period will be obtained on a firm or plant basis for a representative sample of employers in the Buffalo, N.Y., standard metropolitan statistical area. These data will be analyzed on a yearly basis. Average annual changes in labor force size and in wage rates will be calculated.

Estimated Completion Date: Fiscal year 1970.

**1.3.25 DUKE UNIVERSITY
DURHAM, N.C.**

GRANT NO. 91-35-68-15

Doctoral Candidate: Norville David Crowder, Department of Sociology and Anthropology.

Sponsor: Dr. Joel Smith.

Dissertation: The Socioeconomic Assimilation of Southern Born Migrants to Other Regions

Objectives and Procedures: This study will depict the effects of early life experiences in the South on job market participation of migrants from that region. Four groups will be compared with respect to income, education, and occupational prestige: (1) Migrants born and educated in the South who now live in another region (for example, the Northeast); (2) migrants born in the South and educated elsewhere, now living in the Northeast; (3) native born, non-Southern educated residents of the Northeast; and (4) migrants to the Northeast who were born and educated in regions other than the South.

The primary source will be a content evaluation study, *Accuracy of Data on Population Characteristics as Measured by Reinterviews*, prepared by the Bureau of the Census in 1964.

Estimated Completion Date: Fiscal year 1969.

**1.3.26 FORDHAM UNIVERSITY
BRONX, N.Y.**GRANT NO. 91-34-67-23
91-34-68-25

Doctoral Candidate: Mary B. Harmeling, Department of Sociology and Anthropology.

Sponsor: Rev. Joseph P. Fitzpatrick, S.J.

Dissertation: The Role of Social and Cultural Links in the Urban Occupational Adjustment of Southern Appalachian Migrants

Objectives and Procedures: This study is concerned with the accommodation of Southern Appa-

lachian migrants to urban society. The experiences of migrants 1 to 2 years after they reached the city are being examined and compared with their present situations to determine what degrees of stability they have achieved with regard to occupation, housing, and personal and family adjustment. Profiles of the migrants are being compiled and ranked by relative adjustment to the various aspects of their new environment.

Between 50 and 100 families from depressed, underdeveloped counties in eastern Kentucky who have recently moved into Kenton County, Ky., the nearest highly industrialized metropolitan area, comprise the study population. Family histories of migration are being reconstructed through personal interviews.

Estimated Completion Date: Fiscal year 1969.

**1.3.27 FORDHAM UNIVERSITY
BRONX, N.Y.**

GRANT NO. 91-34-68-58

Doctoral Candidate: Eleanor H. Meyer, Department of Sociology and Anthropology.

Sponsor: Rev. Joseph P. Fitzpatrick, S.J.

Dissertation: The Occupational Adjustment of Cubans in the West New York, N.J., Area

Objectives and Procedures: This study will explore the consequences of Cuban immigration into a small city. The study will identify demographic characteristics of the immigrants as well as determine factors helping or hindering their adjustment. Special emphasis will be given to the impact of these immigrants on the local job market and the extent to which they utilize their previous occupational skills. Data on West New York, N.J., Cuban refugees will be assembled from the records of schools, hospitals, churches, police, and housing agencies. Every Cuban family will be located with the help of knowledgeable residents, and a 10-percent sample will be interviewed.

Estimated Completion Date: Fiscal year 1969.

**1.3.28 HARVARD UNIVERSITY
CAMBRIDGE, MASS.**

GRANT NO. 91-23-66-16
91-23-67-52

Doctoral Candidate: Llad Phillips, Department of Economics.

Sponsor: Dr. John T. Dunlop.

Dissertation: Dynamics of Labor Turnover in U.S. Industry

Objectives and Procedures: This study seeks to identify the variables affecting the size, variability, and timing of labor turnover in manufacturing and mining industries.

Regression analysis is being used to ascertain the significant economic variables determining the magnitude and seasonal and cyclical variation of types of labor turnover. A mathematical model of labor turnover rates for a particular industry is being constructed, and the results are being compared with actual turnover rates.

Estimated Completion Date: Fiscal year 1969.

**1.3.29 HARVARD UNIVERSITY
CAMBRIDGE, MASS.**

GRANT NO. 91-23-67-42

Doctoral Candidate: Alexander Korns, Department of Economics.

Sponsor: Dr. John T. Dunlop.

Dissertation: The Effects of Unemployment and Inflation on Income Distribution in the United States

Objectives and Procedures: This study is investigating patterns of inflation and unemployment, and will provide empirical data designed to assist policy decisions in this field. Data from various sources, including the Federal Government are being used.

Estimated Completion Date: Fiscal year 1969.

**1.3.30 HARVARD UNIVERSITY
CAMBRIDGE, MASS.**

GRANT NO. 91-23-68-57

Doctoral Candidate: Michael L. Wachter, Department of Economics.

Sponsor: Dr. John T. Dunlop.

Dissertation: A Wage Model of a Local Labor Market

Objectives and Procedures: This study will assess the adequacy of a model commonly used to project wage changes, the Phillips curve, and will attempt to construct a model better equipped to deal with the wage relationship. Considering the wage determination process as the U.S. economy moved from the low growth and high unemployment rates of the 1950's to the rapid growth and low unemployment rates of the 1960's, the researcher will answer the following questions with regard to several cities:

1. Did a single wage equation exist over this period?
2. How were wage relationships among firms altered by changes in the job market?
3. How did wages in different occupations react during this period?

Information will be drawn from wage data collected since 1957 for the Boston survey group, consisting of 40 large firms in the Boston area, and from similar data collected through private surveys in a midwestern and a western city. The Bureau of Labor Statistics' occupational wage surveys' and the Boston Office of Employment Security will provide further information.

Estimated Completion Date: Fiscal year 1970.

**1.3.31 UNIVERSITY OF ILLINOIS
URBANA, ILL.**

GRANT NO. 91-15-66-52

Doctoral Candidate: Edward W. Haurek, Department of Sociology.

Sponsor: Dr. Joseph R. Gusfield.

Dissertation: Sociological Determinants of College Aspiration, College Curriculum Choice, and Occupational Aspiration Among Working Class Adolescents

Objectives and Procedures: The objective of this study is to test the hypothesis that the environment of working-class adolescents causes them to differ from middle-class children in value placed on a college education and in the choice of an occupation.

Data from Project TALENT are being used to compare values and characteristics of middle-class and working-class adolescents. Statistical techniques are being utilized in comparison of aspirations, achievements, aptitudes, relationships with fellow students, degree of parental supervision, occupational choices, and motivations for college attendance.

Estimated Completion Date: Fiscal year 1969.

**1.3.32 INDIANA UNIVERSITY FOUNDATION
BLOOMINGTON, IND.**

GRANT NO. 91-16-68-13

Doctoral Candidate: Robert E. Otlewski, Department of Economics.

Sponsor: Dr. Taulman A. Miller.

Dissertation: Analysis of Male Secondary School Teacher Mobility in the State of Indiana.

Objectives and Procedures: This study will attempt to identify the demographic and economic factors which characterize the geographically mobile teacher, to determine his mobility patterns, to analyze the communications channels used by the teacher and hiring official, and to formulate policy tools which would affect the pattern and incidence of mobility.

The study will focus on male secondary school teachers in Indiana. The primary source of data will be the statistics collected by the Indiana Department of Public Instruction for the 5-year period beginning with the 1963-64 academic year. Approximately 2,000 questionnaires will be sent to three groups: (1) All male secondary inservice teachers who changed school corporations within Indiana during the period June-September 1967; (2) a stratified subsample of those teachers who were immobile during that period; and (3) State school superintendents.

Estimated Completion Date: Fiscal year 1969.

**1.3.33 THE UNIVERSITY OF IOWA
IOWA CITY, IOWA**

GRANT NO. 91-17-67-09

Doctoral Candidate: Theodore E. Newman, Department of Economics.

Sponsor: Dr. B. L. Barnes.

Dissertation: The Effectiveness of Wage Rates in Attracting and Repelling People To Offer Labor Service

Objectives and Procedures: This study seeks to evaluate the effectiveness of wage rate differentials in allocating labor services. Results are expected to provide a clearer understanding of the labor force's response to wage differentials and a basis for the development of more effective labor allocation programs.

The researcher is analyzing wage level patterns among and within manufacturing industries.

Estimated Completion Date: Fiscal year 1969.

**1.3.34 THE JOHNS HOPKINS UNIVERSITY
BALTIMORE, MD.**

GRANT NO. 91-22-68-23

Doctoral Candidate: Samuel Gubins, Department of Political Economy.

Sponsor: Dr. Edwin S. Mills.

Dissertation: A Benefit-Cost Analysis Comparing Training of Youth With Adults

Objectives and Procedures: This study will attempt to isolate the effects of age and previous education on the costs and benefits of MDTA institutional training of the unemployed. The age groups for this study are 16 to 21 years (youth), 22 to 44 years (adults), and 45 and over (older workers). Levels of educational attainment are grouped as less than 8 years, 8 to 9 years, 10 to 11 years, and 12 years and over. Cost and benefit factors will be computed for the trainee, the Government, and the economy. A matrix will be constructed to show the effect of age on the benefit-cost

ratio derived for a given educational attainment, and the effect of education on the benefit-cost ratio derived for a given age group.

The sample for this study will include approximately 500 persons participating in a group of institutional training projects in the Baltimore standard metropolitan statistical area. Data will be obtained primarily from records of the Maryland State Employment Service, with additional data derived from questionnaires, interviews, and other sources.

Estimated Completion Date: Fiscal year 1969.

1.3.35 THE UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION LEXINGTON, KY.

GRANT NO. 91-19-68-60

Doctoral Candidate: Brian S. Rungeling, Department of Economics.

Sponsor: Dr. F. Ray Marshall.

Dissertation: Impact of Commuter Aliens on the Garment Industry and Economy of El Paso, Tex.

Objectives and Procedures: This project will assess the impact on the garment industry in El Paso, Tex., of Mexicans commuting to industry jobs from across the border. It will explore the importance of Mexican commuters to the industry, their effect on the wages and employment of American workers, and the potential effects of closing the border to commuters. Data will be gathered through interviews with commuter aliens and with employers who do and do not hire commuters.

Estimated Completion Date: Fiscal year 1970.

1.3.36 UNIVERSITY OF MARYLAND COLLEGE PARK, MD.

GRANT NO. 91-22-67-04

Doctoral Candidate: Rev. William J. Byron, Department of Economics.

Sponsor: Dr. Paul A. Weinstein.

Dissertation: The Applicability of the Job-Bank Concept to the Washington, D.C., Market for Female Household Workers

Objectives and Procedures: This study is concerned with the unskilled and unemployed workers who, though capable of performing a service, are unable to establish contact with potential employers. Job banks have been suggested as one possible remedy for the employment problems of the unskilled. A job bank is a firm which hires a pool of unemployed workers and acts as their manager in contacting potential employers; provides bonding, uniforms, transportation to the job, and basic fringe benefits; and pays regular wages from earnings collected directly from the employers. This study is determining whether the job-bank concept is applicable to a specific occupational and geographic market (domestic workers in the Washington, D.C., metropolitan area) and whether such a firm could operate at a profit while improving the organization of the market for unskilled labor.

Complaints of shortages from the demand side of the market are being examined to test the hypothesis that the job market is failing buyers and sellers of female household labor. Wage data and nonprice measures of shortage, such as a decline in the quality of labor hired and more intensive use of available help, are being collected from several sources: (1) A review of each application and job order for household workers submitted to the Washington, D.C., office of the U.S. Employment Service during the month of October 1966; (2) an interview with all applicants for domestic service jobs during the month; and (3) mail questionnaires for employers. Other information is being obtained through interviews with managers of temporary help service agencies and of fee-charging agencies dealing with low-skill occupations.

Estimated Completion Date: Fiscal year 1969.

1.3.37 MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS.

GRANT NO. 91-23-68-77

Doctoral Candidate: Robert I. Lerman, Department of Economics.

Sponsor: Dr. Robert M. Solow.

Dissertation: An Analysis of Factors Affecting Youth Unemployment

Objectives and Procedures: This study will consider the following questions with regard to the teenage job market in the United States:

1. What are the causes of the apparent increase in youth unemployment rates relative to adult rates since World War II?

2. What factors contribute to high youth unemployment rates in any given year?

3. What factors cause relative youth unemployment rates to vary across job market areas?

4. What are the attributes which meaningfully discriminate among employed youth, unemployed youth, and youth not in the labor force?

5. Why does the unemployment situation change as youth reach their early and middle twenties?

Material for analysis will be drawn from Bureau of Labor Statistics data, the 1950 and 1960 censuses, the 1960 1/1000 sample census, and special labor force data recently tabulated for the Office of Economic Opportunity.

Estimated Completion Date: Fiscal year 1970.

1.3.38 MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS.

GRANT NO. 91-23-69-02

Doctoral Candidate: A. Bradley Askin, Department of Economics.

Sponsor: Dr. Robert M. Solow.

Dissertation: An Economic Analysis of Selected Aspects of Negro Migration

Objectives and Procedures: This study will explore selected economic aspects of Negro migration among regions of the country, within counties, and within cities. It will seek answers to three questions:

1. What key demographic and labor force variables affect the migration decision of Negroes?

2. What effect does Negro migration have on migrants' income, employment, and public welfare received, after other factors are accounted for?

3. What are the differences between northern and southern Negroes with respect to the causes and effects of migration? The study will also examine the effects

of such factors as changes in employment and standard of living on Negro migration into urban ghettos.

Data will be obtained from special reports of the 1950 and 1960 censuses, as well as the 1/1000 sample of the 1960 census. Data being compiled in 1968 by the Bureau of Labor Statistics concerning major ghetto areas will also be utilized.

Estimated Completion Date: Fiscal year 1969.

1.3.39 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

GRANT NO. 91-24-66-43

Doctoral Candidate: Worth C. Summers, Department of Sociology.

Sponsor: Dr. William A. Faunce.

Dissertation: The Impact of Work Organization on Commitment to and Participation in a Scientific Discipline

Objectives and Procedures: This study is attempting to determine how and to what degree the distribution of scientists in compatible and incompatible organizational situations changes professional participation and commitment in the field of microbiology.

Questionnaires mailed to members of the American Society for Microbiology are being used to determine the effect of work settings upon their commitment to and participation in their discipline.

Estimated Completion Date: Fiscal year 1969.

1.3.40 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

GRANT NO. 91-24-66-44

Doctoral Candidate: John Pease, Department of Sociology.

Sponsor: Dr. William H. Form.

Dissertation: Economic Mobility in an Affluent Community

Objectives and Procedures: The major objectives of this study are to describe and analyze the sources

1.3 Active Dissertation Grants

of economic mobility and immobility in an affluent community and to specify the factors which result in its transmission from one generation to the next.

Spending units in Lansing, Mich., a relatively affluent community in which 81 percent of the families earn more than \$4,000 annually, are being interviewed in order to find the relationship between the income level of one generation and the next.

Estimated Completion Date: Fiscal year 1969.

1.3.41 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

GRANT NO. 91-24-67-01

Doctoral Candidate: Lawrence E. Sneden, Department of Sociology.

Sponsor: Dr. F. B. Waisanen.

Dissertation: Factors Involved in Upward Social Mobility From the Culture of Poverty

Objectives and Procedures: The influence of selected variables upon the development of attitudes conducive to eventual escape from poverty is being measured in this study. Age, sex, marital status, and the amount of social contact young people from low-income families have with the larger society are the variables being tested. The study is expected to provide an outline of the conditions requisite to both the development of occupational aspirations and the acceptance and pursuit of manpower training programs.

At least 600 individuals 15 to 27 years of age are being interviewed in a random household sample of the two census tracts having the lowest median family incomes in Lansing, Mich. Through the use of questionnaires, data are being collected and analyzed on the demographic characteristics of the young people, their perceptions of opportunity for and desirability of upward social mobility, and the nature and degree of contact they have outside their own culture.

Estimated Completion Date: Fiscal year 1969.

1.3.42 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

GRANT NO. 91-24-68-01

Doctoral Candidate: John D. Mason, Department of Economics.

Sponsor: Dr. Jack Stieber.

Dissertation: The Aftermath of the Bracero: A Study of the Economic Impact on the Agricultural Hired Labor Market of Michigan from the Termination of Public Law 78

Objectives and Procedures: Three years have elapsed since the expiration of the agreement with Mexico allowing bracero labor to be brought into the United States to fill seasonal needs for farmworkers. This research is appraising the longrun impact of and adjustment to termination of the agreement in Michigan's agricultural economy. The decision of Congress not to renew the agreement is being evaluated in terms of how well it has fulfilled its goals of boosting wages, absorbing unemployment, and enhancing working conditions among domestic hired farmworkers. Examination of the current labor demand-supply situation in the Michigan farm industry should help to resolve the question of the relationship between agricultural wage levels and the supply of domestic farmworkers.

About 1,000 returns are expected from questionnaires sent to a sample of 4,000 fruit and vegetable farmers with annual sales over \$20,000. The questionnaire requests data on wages, hours, income, capital substitution, and small vs. large farm trends. Further data are being collected from relevant public and private records and through interviews with farmers, laborers, bankers, and processors in 20 to 25 geographic subsectors.

Estimated Completion Date: Fiscal year 1969.

1.3.43 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

GRANT NO. 91-24-68-22

Doctoral Candidate: Leonard Lieberman, Department of Sociology.

Sponsor: Dr. James B. McKee.

Dissertation: The Influence of Job Training, Significant Others, and Opportunity Structure on the Labor Market Participation of Chippewa and Poor Whites

Objectives and Procedures: The researcher will analyze the labor force participation rates of 50 Chippewa Indians and 130 poor whites in Michigan prior to and after job training. Occupational mobility after training will be measured in terms of its relationship to job training, opportunity structure, and the influence of other individuals significantly related to the trainees (such as relatives, friends, teachers, or counselors).

Data on trainees have been collected through observation and interviews, and from training center records. A comparison group of workers in central Michigan will also be interviewed. Trainees will be reinterviewed approximately 1 year after completion of the training program. Several scales will be used to make comparisons within and among the groups.

Estimated Completion Date: Fiscal year 1969.

1.3.44 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

GRANT NO. 91-24-66-22

Doctoral Candidate: James A. Sweet, Department of Sociology.

Sponsor: Dr. Otis Dudley Duncan.

Dissertation: Family Composition and the Labor Force Participation of Married Women

Objectives and Procedures: This study examines the influence of family composition on the labor force activities of married women in the United States. The presence of children in the household and their ages are the major variables being studied. Other factors, including characteristics of the women (i.e., their age, race, education, place of origin) and characteristics of their husbands and families (i.e., husband's income and employment status) are being utilized as controls, and interactions between them and household composition variables are being examined.

Data from the U.S. Bureau of the Census, largely from the 1/1000 sample tape from the 1960 Census

of Population, are being used. Multivariate statistical methods are being employed for analysis.

Estimated Completion Date: Fiscal year 1969.

1.3.45 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

GRANT NO. 91-24-67-21
91-24-68-44

Doctoral Candidate: Dorothy M. Herberg, Department of Sociology.

Sponsor: Dr. Louis A. Ferman.

Dissertation: The Career Patterns of Female Social Workers

Objectives and Procedures: Career patterns for women with professional social work training are being developed from information on the employment and the extent of underutilization of these women; the retraining or skill improvement they might need to reenter the profession; and the determinants of their career decisions.

Comprehensive mail questionnaires are being sent to a potential sample of 6,000 women who received master's degrees in social work from 1956 through 1960. They are being asked to provide data on background, education, current socioeconomic status, marital and family facts, professional practice and other employment experience, and general career attitudes. These data are being analyzed to provide typologies of career patterns and to explain variations among them.

Estimated Completion Date: Fiscal year 1969.

1.3.46 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

GRANT NO. 91-24-68-07

Doctoral Candidate: Jeffry Piker, Department of Sociology.

Sponsor: Dr. Louis A. Ferman.

Dissertation: Community Organization, Race, and Entry Into the Work Force

Objectives and Procedures: This is an investigation of patterns of access to entry-level jobs and the effect of race, community organization, and other variables on such patterns. Analysis of the linkage between the community and its job economy should provide a better understanding of the forces which create and sustain racial inequality in employment. A theoretical framework is being developed to test appropriate hypotheses regarding the effects of community organization on jobseeking behavior and the effects of race on work force entry.

Findings will be based on an analysis of data collected between 1962 and 1964 by the Chicago Youth Development project under a grant from the Ford Foundation. These data were drawn from a random sample of 1,260 boys aged 10 to 19 years, 300 mothers, and 200 community leaders in four southwest Chicago neighborhoods, each of which is a high-poverty, high-delinquency area, with an identity stemming from natural boundaries and subcultures. Qualitative knowledge and insights gained in firsthand investigation supplement the analysis of the data.

Estimated Completion Date: Fiscal year 1969.

1.3.47 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

GRANT NO. 91-24-68-61

Doctoral Candidate: Robert B. Athanasiou, Department of Psychology.

Sponsor: Dr. Theodore M. Newcomb.

Dissertation: Selection and Socialization: A Study of Engineering Attrition

Objectives and Procedures: This study will examine the attrition of engineering students by testing the hypothesis that those inclined to remain in engineering and those inclined to transfer out will both be reinforced, in their respective directions, by the socialization process. Data for this study were obtained from tests and a questionnaire given to 567 students entering the Engineering School at The University of Michigan in 1965. Such variables as perception of engineering and of self, peer relations, and personality characteristic will be compared for three groups established at

the end of the sophomore year: Those who stayed in engineering; those who transferred out; and those who remained in engineering, although dissatisfied.

Estimated Completion Date: Fiscal year 1969.

1.3.48 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

GRANT NO. 91-24-68-62

Doctoral Candidate: Donald Sommerfeld, Institute of Labor and Industrial Relations

Sponsor: Dr. Louis A. Ferman.

Dissertation: A Comparative Description of Current Job Training Efforts in Detroit

Objectives and Procedures: This study will measure the effectiveness of four types of training programs in Detroit: Concentrated Employment Programs; vocational education; combined vocational and basic education; and private training programs. The study will identify demographic characteristics, educational background, and job market experiences of trainees, as well as the nature, duration, and other characteristics of the training programs.

Fifty male graduates selected at random from each of the training programs will be interviewed 6 months after completion of training. Data will also be collected from program records.

Estimated Completion Date: Fiscal year 1969.

1.3.49 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

GRANT NO. 91-24-68-75

Doctoral Candidate: Larry B. Sawers, Department of Economics.

Sponsor: Dr. Louis A. Ferman.

Dissertation: Labor Force Participation Patterns of the Urban Poor

Objectives and Procedures: This study will focus on the decline in the labor force participation of Negroes, compared to other groups, since 1950. It will describe the participation patterns of the urban poor

as a whole, and of various subgroups by race or ethnic group, age, sex, and education or training. The participation patterns discerned will be related to changes in aggregate labor demand and supply, taking into account several demographic variables which influence participation rates.

The study will examine a random sample of low-income tracts in standard metropolitan statistical areas of 500,000 or more. Information will be drawn from the 1/1000 sample of the 1960 census, the Urban Employment Survey conducted by the Bureau of Labor Statistics in 1966, and 1950 and 1960 census data classified by tract.

Estimated Completion Date: Fiscal year 1969.

**1.3.50 NEW SCHOOL FOR SOCIAL RESEARCH
NEW YORK, N.Y.**

GRANT NO. 91-34-67-46

Doctoral Candidate: Thomas H. Shey, Department of Sociology.

Sponsor: Dr. Deborah Offenbacher.

Dissertation: The Effects of Prior Work Experience on the Professional Socialization of Social Work Students

Objectives and Procedures: This study investigates attitudes and motivation of students in graduate social work training. It seeks to determine whether it is preferable to encourage these students to pursue graduate study immediately following completion of undergraduate work, or to encourage them to acquire some professional experience in the field before entering graduate school. Questionnaires are being administered to 400 students in the New York University Graduate School of Social Work and to 100 students from other graduate schools of social work in the New York metropolitan area. Participating students are also being observed and interviewed informally. Students with and without previous social work experience are being contrasted regarding: (1) Perception of themselves at various stages of training; (2) immediate and long-range career goals; and (3) understanding of what will be expected of them as professional social workers. Data are being grouped to allow for consideration of other variables affecting students' attitudes and moti-

vation, including degree of training and social work indoctrination received, type of work background, age, and sex.

Estimated Completion Date: Fiscal year 1969.

**1.3.51 NEW YORK UNIVERSITY
NEW YORK, N.Y.**

GRANT NO. 91-34-66-18
91-34-67-28

Doctoral Candidate: Warren Mintz, Department of Sociology.

Sponsor: Dr. Sidney Aaronson.

Dissertation: A Study of Variables Involved in the Successful Adaptation of Agricultural Migrant Families

Objectives and Procedures: This study is designed to uncover mechanisms which successful migrant families use to keep themselves well organized and immune from the disrupting conditions that one would ordinarily expect for people in such circumstances.

The investigator is staying with migrant families as a member of their work unit in order to collect data on the intrafamily relationships and on the relation of the family to the social and economic communities in which it finds work.

Estimated Completion Date: Fiscal year 1969.

**1.3.52 NORTHWESTERN UNIVERSITY
EVANSTON, ILL.**

GRANT NO. 91-15-68-16

Doctoral Candidate: Philip G. Teets, Department of Economics.

Sponsor: Dr. George E. Delehanty.

Dissertation: A Model of Supply and Demand for Labor in Retail Trade

Objectives and Procedures: This project will develop and test a model of labor demand and supply for retail trade industries that will provide quantitative measures of: (1) The effect of increased education on the ability of labor in retail trade to find higher

paying jobs elsewhere; (2) the sensitivity of the retail trade labor supply to wages in other sectors; (3) the sensitivity of the demand for labor to increases in retail sales; and (4) the sensitivity of the demand for labor to increases in retail trade wages.

Data will be taken from the latest national censuses of business, manufactures, and population. The study will be confined to the 52 standard metropolitan statistical areas with more than 500,000 inhabitants in 1960. Estimates of labor supply and demand will be provided for 10 types of retail trade establishments.

Estimated Completion Date: Fiscal year 1969.

1.3.53 THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION COLUMBUS, OHIO

GRANT NO. 91-37-66-40

Doctoral Candidate: Paul B. Miller, Department of Economics.

Sponsor: Dr. Glenn W. Miller.

Dissertation: An Analysis of Government Training Programs in Ohio

Objectives and Procedures: This study is designed to augment currently available data on work experience of MDTA course graduates in Ohio.

Records of both graduates who found employment and those who were still unemployed shortly after completion of training are being analyzed to determine if there are important differences among trainees in personal and work experience which affect their methods, ability, and willingness to adapt to the world of work.

Estimated Completion Date: Fiscal year 1969.

1.3.54 UNIVERSITY OF PENNSYLVANIA PHILADELPHIA, PA.

GRANT NO. 91-40-67-51

Doctoral Candidate: Moshe Sicron, Graduate Group in Demography.

Sponsor: Dr. John D. Durand.

Dissertation: Interrelationship Between Educational Level and Occupational Structure of the Labor Force—An International Comparison

Objectives and Procedures: This project compares levels of educational attainment by occupation in several countries and uses these relationships to measure the adequacy of current methods of educational planning for manpower needs. Chief emphasis is on international variations in the educational levels of workers in professional, technical, and managerial occupations. Differences are being correlated with: the degree of development in the country; changes in per-man output of the country and of its industries; income differentials; minimum educational requirements for occupations (where such requirements prevail); and the influence on income of the level of education and the occupation pursued.

Occupational data from censuses taken around 1960 by the several countries are being assembled. Data cross-classified by education and, where available, by age, sex, region, income, and other variables, are also being used. Adjustment is being made for differences in methods of classification among the countries.

Estimated Completion Date: Fiscal year 1969.

1.3.55 PRINCETON UNIVERSITY PRINCETON, N.J.

GRANT NO. 91-32-66-20

Doctoral Candidate: Stanley W. Huff, Department of Economics.

Sponsor: Dr. Frederick H. Harbison.

Dissertation: Hiring Practices, Hiring Standards, and Manpower Development Policies of Selected Employing Institutions in Labor Markets With Differing Rates of Unemployment

Objectives and Procedures: This project is studying the differences in wages of comparable occupations and the recruiting policies of employers between the adjacent job markets of Steubenville, Ohio—Weirton, W. Va., which has a low rate of unemployment, and Wheeling, W. Va., where the rate of unemployment is about the national average.

Personnel managers of firms in both areas are being interviewed to determine differences in hiring policies.

Estimated Completion Date: Fiscal year 1969.

1.3.56 PRINCETON UNIVERSITY
PRINCETON, N.J.

GRANT NO. 91-32-68-19

Doctoral Candidate: Paul Offner, Department of Economics.

Sponsor: Dr. Albert Rees.

Dissertation: Labor Force Behavior in the Poverty Areas

Objectives and Procedures: This study will compare labor force participation, employment, educational attainment, and other variables in urban poverty areas and in urban nonpoverty areas in order to establish a picture of labor force behavior in poverty areas. This picture will be compared with labor force relationships characterizing the population at large, such as the positive relationship between education and employment. Finally, the effects of industrial location on the labor force behavior of poverty area residents will be analyzed.

Poverty areas for this study will consist of approximately 5,000 areas (within standard metropolitan statistical areas of 250,000 or more) which were identified as poor by the Bureau of the Census in 1966. Data will be drawn from published and unpublished 1960 census tract materials and from more recent information on poverty areas compiled by the Office of Economic Opportunity and the Census Bureau.

Estimated Completion Date: Fiscal year 1969.

1.3.57 PURDUE RESEARCH FOUNDATION
LAFAYETTE, IND.

GRANT NO. 91-16-67-13

Doctoral Candidate: Darrell R. Benjamin, Department of Counseling and Guidance.

Sponsor: Dr. William K. LeBold.

817-281 0-68-5

Dissertation: A 30-Year Longitudinal Study of Engineering Interest Profiles and Career Patterns

Objectives and Procedures: This is an inquiry into the reasons for the stability of personal interests throughout a career. The education, interests, and career patterns of a number of Purdue University engineering graduates are being examined to test whether individual interests, as measured early in college and compared with those of persons working in various occupations, provide an adequate basis for predicting the future occupations of students. Results will reveal whether individuals seek a vocation which allows expression of interests existing during college, or whether individuals, as a result of their work experiences, become very much like others in the same occupation.

Purdue engineering alumni who were administered the Strong Vocational Interest Blank in 1935 are being retested through mail questionnaires and the resulting data are being synthesized with data from the Purdue Engineering and Science Alumni Survey. The relationships between interests and career patterns are being measured over a 30-year period.

Estimated Completion Date: Fiscal year 1969.

1.3.58 PURDUE RESEARCH FOUNDATION
LAFAYETTE, IND.

GRANT NO. 91-16-68-35

Doctoral Candidate: Lawrence S. Zudak, Krannert School of Industrial Administration.

Sponsor: Dr. Edward Ames.

Dissertation: A Theoretical Analysis of the Supply and Demand for Labor in the Steel Industry

Objectives and Procedures: The major outlines of the traditional derivation of labor supply and demand will be examined for the steel industry in light of such modern industrial realities as specialization of labor, broad union jurisdiction, job sequences, crew size rules, and systems of training and promotion involving vertical rather than horizontal mobility. The study will center on the northern Indiana steel industry. Locally obtained information will be confirmed whenever possible by information obtained from union and management officials in Pittsburgh and other steel-producing centers.

Estimated Completion Date: Fiscal year 1969.

**1.3.59 SOUTHERN METHODIST UNIVERSITY
DALLAS, TEX.**

GRANT NO. 91-46-68-43

Doctoral Candidate: Dale Rasmussen, Department of Economics.

Sponsor: Dr. Finis Welch.

Dissertation: Rates of Return to Investment in On-the-Job Training

Objectives and Procedures: This study will measure the rates of return to the economy, Government, firm, and individual of investment in federally sponsored on-the-job training (OJT). It will examine the relationship between rates of return and rates of unemployment to see what investment opportunities are offered by retraining workers in depressed and expanding areas. Possible supplementary provisions of OJT which may tend to increase horizontal and vertical labor mobility will be evaluated.

The analysis will seek to develop aggregate pre-training age-income profiles for individuals of different levels of schooling, classified by region, who are participating in federally sponsored OJT programs. Comparable aggregate profiles will be assembled for individuals who complete on-the-job training and use the skills they were taught, and for a control group of individuals who receive on-the-job training but do not use their new skills. Rates of return will be calculated and compared with those offered by other forms of investment. Data collected by the U.S. Department of Labor will be used in the study.

Estimated Completion Date: Fiscal year 1969.

**1.3.60 STANFORD UNIVERSITY
PALO ALTO, CALIF.**

GRANT NO. 91-05-66-24
91-05-67-30

Doctoral Candidate: Paul D. Gayer, Department of Economics.

Sponsor: Dr. Melvin W. Reder.

Dissertation: Manpower Effects of Cuban Immigrant Flows, 1959-66

Objectives and Procedures: The study is assessing the mechanisms by which the U.S. economy as a whole and the job market of the Miami area adjusted to the inflow of political refugees from Cuba.

Actions of Federal, State, and local authorities to cope with inflows of refugees are being appraised. A competitive model for the Miami job market is being constructed, and results will be compared with actual conditions in the job market.

Estimated Completion Date: Fiscal year 1969.

**1.3.61 STANFORD UNIVERSITY
PALO ALTO, CALIF.**

GRANT NO. 91-05-68-56

Doctoral Candidate: Jay Siegel, Department of Economics.

Sponsor: Dr. Julius Margolis.

Dissertation: Intrametropolitan Migration of Minority Groups: Residential Change in Response to Occupational Opportunities

Objectives and Procedures: This study will consider whether migration within a metropolitan area by minority group households is a function of change in distance traveled to the job and/or change in the type of housing desired. The study will also examine whether nonwhite jobs are dispersing from the central business district. Data on nonwhites and families with Spanish surnames will be drawn from a 50,000 home interview survey conducted by the Bay Area Transportation Study Commission in 1965 and covering nine counties in the San Francisco area.

Estimated Completion Date: Fiscal year 1970.

**1.3.62 SYRACUSE UNIVERSITY
SYRACUSE, N.Y.**

GRANT NO. 91-34-68-03

Doctoral Candidate: Bernard Daniel Rostker, Department of Economics.

Sponsor: Dr. Jerry Miner.

Dissertation: The Theory of Manpower Requirements and Occupational Retraining and the Determinants of MDTA Training Success

Objectives and Procedures: In this study, labor requirements concepts found in several theoretical production models are being applied to occupational training, and the results are being used as a basis for identifying and evaluating the elements of a successful MDTA training program. Program elements which are being examined as determinants of success include demographic characteristics and educational background of trainees, local environment (i.e., neighborhood characteristics as reported in the census tract and block reports), local employment conditions, characteristics of instructors, and course content and costs (i.e., method of instruction, the capital/student ratio, the student/teacher ratio, funds spent in various activities). The relative success of a program is being measured in terms of the proportion of enrollees who complete training, wage and employment differentials before and after training, and the internal efficiency of the program itself (i.e., the effective use of scarce resources to produce trained workers). Training and course records are being analyzed for MDTA programs (completed or active) which had been authorized as of June 30, 1965, in the Syracuse, N.Y., area. This sample includes 868 trainees in 19 occupational retraining programs.

Estimated Completion Date: Fiscal year 1969.

1.3.63 SYRACUSE UNIVERSITY SYRACUSE, N.Y.

GRANT NO. 91-34-68-42

Doctoral Candidate: Alan B. Kirschenbaum, Department of Sociology.

Sponsor: Dr. William Pooler.

Dissertation: Family Migration Between Metropolitan Areas

Objectives and Procedures: This study will examine the social and demographic characteristics of families moving between metropolitan areas. It will focus on occupational background as a determinant of migra-

tion, and will also relate migration to race, age, education, and family size. The study will provide a profile of migrant families by areas of destination and their size.

Data will be obtained through analysis and cross-tabulation of the 1/1000 sample of the 1960 census. The sample for the study will consist of family units having moved between standard metropolitan statistical areas during the period 1955-60.

Estimated Completion Date: Fiscal year 1969.

1.3.64 THE UNIVERSITY OF TEXAS AUSTIN, TEX.

GRANT NO. 91-46-68-24

Doctoral Candidate: John L. Iacobelli, Department of Economics.

Sponsor: Dr. F. Ray Marshall.

Dissertation: Training Programs of Private Industry in the Greater Cleveland Area

Objectives and Procedures: Seeking to determine the best way to coordinate Federal training programs with training by private industry, this study will gather information about private employers' attitudes and opinions and their suggestions for improving training programs in the Greater Cleveland area. It will solicit employers' ideas on the division of training responsibility among private industry, Government, and the educational system and on ways of coordinating such training programs. Quantitative information on private training programs in Cleveland will be used to evaluate the present effectiveness of these programs and their potential for solving minority group unemployment in a metropolitan area.

Information will be sought through personal interviews with employers, trade school administrators and instructors, and State employment officials, as well as through questionnaires sent to employees in formal training programs, graduates of such programs, employees informally trained on the job, and trainees in a trade school program.

Estimated Completion Date: Fiscal year 1969.

1.3 Active Dissertation Grants

1.3.65 TULANE UNIVERSITY
NEW ORLEANS, LA.

GRANT NO. 91-20-68-55

Doctoral Candidate: Thomas L. Turner, Department of Sociology.

Sponsor: Dr. Leonard Reissman.

Dissertation: A Study of Attitudes Comprising the Culture of Poverty

Objectives and Procedures: This study will test the validity of the concept, "culture of poverty," by contrasting the existence of certain values, norms, and attitudes among the poor and nonpoor. It will measure the effects of age, family structure, and race on individual adherence to the values, norms, and attitudes of the "culture of poverty." Emphasis will be placed on those aspects of the "culture" which hinder the poor in achieving economic security when the opportunity is present. Interviews will be conducted in New Orleans with 125 persons from each of the following groups: Poor whites, poor Negroes, and whites and Negroes whose incomes exceed the poverty level.

Estimated Completion Date: Fiscal year 1969.

1.3.66 UTAH STATE UNIVERSITY
LOGAN, UTAH

GRANT NO. 91-47-68-52

Doctoral Candidate: Gary B. Hansen, Department of Economics.

Sponsor: Dr. Felician F. Foltman, Cornell University.

Dissertation: Britain's Industrial Training Act: A Case Study in the Development of Public Manpower Policy

Objectives and Procedures: This project will explore Britain's recent manpower training revolution from the point of view of the 1964 Industrial Training Act. This act created a national occupational training framework for the whole range of skills in order to promote economic growth and modernization in the face of Britain's acute shortage of skilled manpower during a period of full employment and increased

competition in world markets for the nation's manufactured products. The study will examine the Industrial Training Act's impact on existing manpower development and utilization programs and will analyze those aspects of Britain's manpower programs that might be adapted to meet similar needs in the United States.

Data on the operations of institutions comprising the British manpower development framework have already been gathered. In addition, extensive interviews and followup interviews have been conducted with a sample of practitioners and policymakers in British industry, schools, technical colleges, and universities; the Ministry of Labor, Youth Employment Service, Ministry of Education, Industrial Training Service, and Industrial Training Boards; and professional and voluntary associations and private manpower agencies.

Estimated Completion Date: Fiscal year 1969.

1.3.67 UNIVERSITY OF WASHINGTON
SEATTLE, WASH.

GRANT NO. 91-51-66-54

Doctoral Candidate: Stephen E. Baldwin, Department of Economics.

Sponsor: Dr. J. B. Gillingham.

Dissertation: Impact of Governmental Programs on Employment of Youth in the Seattle Labor Market

Objectives and Procedures: This study analyzes job market entry and experience of disadvantaged Seattle teenagers during the current period of exceptionally rapid regional economic expansion. It also assesses the effectiveness of various public agencies and special programs designed to facilitate the assimilation of this group into the labor force.

Youth are being interviewed about their job market experiences. Standard analytical techniques are being used to relate data to factors relevant to success, including age, sex, race, family characteristics, and education. Particular effort is being made to determine the relative job effectiveness of youth who participated in training programs of various public agencies.

Estimated Completion Date: Fiscal year 1969.

**1.3.68 UNIVERSITY OF WASHINGTON
SEATTLE, WASH.**

GRANT NO. 91-51-68-54

Doctoral Candidate: James D. Gwartney, Department of Economics.

Sponsor: Dr. Kenneth McCaffree.

Dissertation: Earnings Differential and Differences in the Occupational Structure of Employment Between White and Nonwhite Males in Major U.S. Cities

Objectives and Procedures: This project will assess the influence of racial discrimination in employment, as evidenced by relative wages and job opportunities, on the occupational distribution of white and nonwhite men in 25 major U.S. cities. It will try to determine whether any income differences between white and nonwhite men in selected occupations can be attributed solely to color. If so, the study will consider in what occupations the largest differences occur in earnings and in distribution of white and nonwhite men, whether differences in wages and job opportunities are greater in southern than in northern cities, and whether racial discrimination in employment increases with the percentage of a city's nonwhite population.

Information will be derived from published census data for 1950 and 1960 and from unpublished 1960 census data.

Estimated Completion Date: Fiscal year 1969.

**1.3.69 WAYNE STATE UNIVERSITY
DETROIT, MICH.**

GRANT NO. 91-24-66-14

91-24-67-26

91-24-68-53

Doctoral Candidate: Stig Ralstrom, Department of Industrial Education.

Sponsor: Dr. G. Harold Silvius.

Dissertation: Teaching Practices for Preventing Dropouts

Objectives and Procedures: The objective of this study is to determine the most effective teaching prac-

tices that instructors of industrial education can use to prevent school dropouts.

Research studies, ratings by experts, and statistical studies of school records are being used to determine the most effective practices for preventing school dropouts.

Estimated Completion Date: Fiscal year 1969.

**1.3.70 UNIVERSITY OF WISCONSIN
MADISON, WIS.**

GRANT NO. 91-53-66-10

91-53-67-16

Doctoral Candidate: Collette Moser, Department of Economics.

Sponsor: Dr. Gerald G. Somers.

Dissertation: An Evaluation of Area Skill Surveys as a Basis for Manpower Policies

Objectives and Procedures: The objective of this study is to evaluate Area Skill Surveys and Training Needs Surveys. These surveys are conducted in cooperation with public employment agencies in order to predict occupational needs for 2 to 5 years.

The content and methodology of the present surveys are being appraised, and accuracy of predictions is being measured by a followup study. Officials are being interviewed to determine the requirements of a successful survey and the extent to which surveys are utilized by employers and vocational program planners.

Estimated Completion Date: Fiscal year 1969.

**1.3.71 UNIVERSITY OF WISCONSIN
MADISON, WIS.**

GRANT NO. 91-53-66-26

Doctoral Candidate: Wilbur J. Smith, Department of Economics.

Sponsor: Dr. Harold Groves.

Dissertation: The Cost and Benefits of Unemployment, Retraining, and Relocation in an Economically

1.3 Active Dissertation Grants

Depressed Area: A Case Study of Five Counties in West Virginia

Objectives and Procedures: This study measures the cost and benefits of retraining the unemployed in terms of how well course offerings met the needs of the local job market, increased the occupational and geographical mobility, improved employment and earnings, and increased the working life of trainees. It is also determining the effect of recently instituted retraining programs on the amount and kind of social welfare payments.

The research utilizes data from interviews, from Social Security files, and from analysis of cost of retraining programs and welfare programs. Detailed statistical analysis and correlations of these data are being made.

Estimated Completion Date: Fiscal year 1969.

1.3.72 UNIVERSITY OF WISCONSIN MADISON, WIS.

GRANT NO. 91-53-66-27

Doctoral Candidate: Jack H. Snyder, Industrial Relations Research Institute.

Sponsor: Dr. Gerald G. Somers.

Dissertation: Personal and Behavioral Factors Affecting the Supply of the Self-Employed

Objectives and Procedures: The objectives of this study are to uncover the personal and behavioral factors governing the supply of self-employed, to compare owner-managers with hired managers, and to forecast on the basis of personal factors the supply of owner-managers in retail and service industries.

Survey data are being compiled by interviewing and testing a sample of owner-managers in Madison, Wis. A representative group of hired managers is being selected for comparison.

Estimated Completion Date: Fiscal year 1969.

1.3.73 UNIVERSITY OF WISCONSIN MADISON, WIS.

GRANT NO. 91-53-66-69

Doctoral Candidate: Walter Hubner, Industrial Relations Research Institute.

Sponsor: Dr. Alan Filley.

Dissertation: Individual Need Satisfaction in Work and Nonwork

Objectives and Procedures: This study explores the motivations of workers, the satisfactions that workers desire from work as well as nonwork, the nature of the strategies that individuals use in approaching work, and the manner in which technology affects jobs and job occupants.

A forced-choice questionnaire is being administered to a sample of skilled and unskilled blue-collar workers. The questionnaire measures the degree to which psychological needs are satisfied by working.

Estimated Completion Date: Fiscal year 1969.

1.3.74 UNIVERSITY OF WISCONSIN MADISON, WIS.

GRANT NO. 91-53-67-17

Doctoral Candidate: Marilyn Joyce DePoy, Department of Economics.

Sponsor: Dr. Gerald G. Somers.

Dissertation: A Study of Women in the MDTA Vocational Training Program in the State of Wisconsin

Objectives and Procedures: This study is determining the differences between female and male trainees in Manpower Development and Training Act programs in Wisconsin with respect to personal characteristics, types of jobs for which they trained, their success in completing programs, and posttraining experiences in the labor force. An attempt is being made to account for these differences and to evaluate their significance in fulfilling the purposes of the act.

A detailed, comparative profile of female and male trainees is being compiled from records of 8,500 Wisconsin trainees. The records, other available job market data, and questionnaire responses are being used in studying the occupations for which women are training and to follow up the subsequent success of the trainees.

Estimated Completion Date: Fiscal year 1969.

**1.3.75 UNIVERSITY OF WISCONSIN
MADISON, WIS.**

GRANT NO. 91-53-68-21

Doctoral Candidate: S. Muthuchidambaram, Industrial Relations Research Institute.

Sponsor: Dr. Gerald G. Somers.

Dissertation: Education, Training and Mobility as Determinants of Income: A Comparative Study of India and U.S.A.

Objectives and Procedures: This study will compare the relative influence of education, training, mobility, and other factors on income in the United States and in India by analyzing: (1) The extent of previous unemployment and underemployment among the currently employed, correlated with age, education, occupation, training, geographic location, and income; (2) the rates and patterns of worker mobility, correlated with the above characteristics; (3) methods of skill acquisition; (4) employment attitudes; and (5) institutional, cultural, and socioeconomic influences on work attitudes and behavior.

The data to be analyzed will be drawn from a number of sources. An earlier study provides data from a survey of 501 industrial workers in Madras, India, and includes details on personal characteristics, work history, geographic mobility, methods of skill acquisition, and job attitudes. Similar data on American workers are available from several studies recently conducted in the United States.

Estimated Completion Date: Fiscal year 1970.

**1.3.76 YALE UNIVERSITY
NEW HAVEN, CONN.**GRANT NO. 91-07-66-19
91-07-68-11

Doctoral Candidate: Robert Goldfarb, Department of Economics.

Sponsor: Dr. Mark W. Leiserson.

Dissertation: A Benefit Cost Study of New Haven's Work-Training Programs

Objectives and Procedures: This study is measuring the relative effectiveness, in terms of income improvement, of various work-training programs in New Haven.

Comparable measures of benefits and costs for each program are being developed based on data from Community Progress, Inc., on the expense of programs and income of participants after training.

Estimated Completion Date: Fiscal year 1969.

**1.3.77 YALE UNIVERSITY
NEW HAVEN, CONN.**

GRANT NO. 91-07-67-38

Doctoral Candidate: Barbara Holtz Kehrner, Department of Economics.

Sponsor: Dr. Mark W. Leiserson.

Dissertation: Demand and Supply Under Conditions of Shortage: A Study of the Nursing Profession

Objectives and Procedures: This study is evaluating the Nurse Training Act of 1964, which sought to increase the supply of nurses through lowering the costs and extending the availability of a nursing education. The extent to which this approach can be expected to alleviate shortages in a labor supply-demand situation is being assessed.

The researcher is concentrating on hospital demand for registered nurses in Connecticut. A series of interviews is being held with the administrators of the State's 35 short-term general hospitals. Wage and employment data for all hospital employees are being provided by the Connecticut Hospital Association.

Estimated Completion Date: Fiscal year 1969.

**1.3.78 YALE UNIVERSITY
NEW HAVEN, CONN.**

GRANT NO. 91-07-68-59

Doctoral Candidate: Bruce R. McKellips, Department of Economics.

Sponsor: Dr. Mark W. Leiserson.

Dissertation: Negro Migration and the Urban Complex: Some Implications for Public Policy

Objectives and Procedures: This study will evaluate aspects of migration as it relates to nonwhites and delineate some of the constraints nonwhite migration places on American society. Structural characteristics of nonwhite migratory flows, the dynamics of Negro population growth within certain cities, and efforts to

change the growing concentration of Negroes in the central cities of metropolitan areas will be analyzed with regard to future policies and programs. The data, which will be obtained from the 1960 census, will describe gross and net migration into and out of States and standard metropolitan statistical areas.

Estimated Completion Date: Fiscal year 1970.

1.4 PROJECTS ACTIVE ON JUNE 30, 1968—Research Project Grants under the MDTA ¹²

1.4.01 BOWLING GREEN STATE UNIVERSITY BOWLING GREEN, OHIO

GRANT NO. 91-37-66-71
91-37-67-39

Principal Staff: Dr. Robert M. Guion, Department of Psychology.

Project Title: The Meaning of Work and Its Relation to the Development of the Motivation to Work

Objectives and Procedures: This study is attempting to determine what meaning work has for the individual leaving school to begin his career, the development of his concept of work, and how it influences his motivation during early employment experience. Engineering and factory personnel to be hired from colleges, trade schools, and high schools are being identified by several companies participating in the project. On the basis of extensive preemployment testing, the subject is classified as "task oriented," "socially oriented," or "self-oriented" when he begins his new job. The group with which he starts work is classified as "work oriented" or "not work oriented." The relationship between meaning of work and motivation, assessed by coworker ratings, is being studied independently for each classification.

Estimated Completion Date: Fiscal year 1969.

1.4.02 UNIVERSITY OF CALIFORNIA, BERKELEY BERKELEY, CALIF.

GRANT NO. 91-05-67-60

Principal Staff: Dr. Lloyd Ulman, Director, Institute of Industrial Relations.

Project Title: Employment Agencies and School Placement Services in a Large Metropolitan Labor Market Area

Objectives and Procedures: This exploratory project lays the groundwork for a major field survey to develop data on: (1) Characteristics of the various types of employment agencies and placement services in the San Francisco Bay area; (2) the relationships of pub-

lic and private employment agencies with educational administrators and counselors; and (3) the adequacy of information relating to occupational changes and job opportunities collected and disseminated by public and private employment services. These data are being used to determine how increased national emphasis on manpower programs has affected the role of employment and placement services, and whether interaction between employment agencies and educational institutions is contributing to the optimum development, flow, and application of information on occupational demand and supply.

This exploratory study is developing a survey entailing personal interviews with staff members from a sample of employment agencies, placement services, and educational institutions in the San Francisco Bay area.

Estimated Completion Date: Fiscal year 1969.

1.4.03 UNIVERSITY OF CALIFORNIA, BERKELEY BERKELEY, CALIF. GRANT NO. 91-05-67-61

Principal Staff: Dr. Lloyd Ulman, Director, Institute of Industrial Relations.

Project Title: A Study of Changing Skill Requirements in the Building Trades

Objectives and Procedures: This study is developing data on the utilization of carpenters in the homebuilding industry. These data are being used in: (1) Examining the demand side of homebuilding to assess changes in requirements for labor and materials; (2) examining the labor supply side of the industry to determine the range of carpentry skills currently practiced; (3) relating the demand and supply sides of the market in an appraisal of the Bay area's current problem of excess supply of carpentry manpower, and of the apparent discrepancy between apprenticeship program practices and actual manpower needs; and (4) developing a new technique for analyzing changes and projecting manpower needs in this sector of the economy.

Two sets of data are being developed, the first relating to changes on the demand side of the homebuilding industry and the second, to changes on the supply side. Estimates on changing demand for labor are being developed on the basis of data on the char-

¹² Requests for information concerning these grants should be directed to the principal staff.

acteristics of houses built in Alameda County in selected years from 1930 to 1965 by sampling building permits and permit applications. Labor requirements for the construction of houses in three price ranges are being estimated on the basis of data from estimators' handbooks, architects' records, and the files of the National Association of Homebuilders. The study of changes on the supply side is based on a mail questionnaire survey of a sample of 4,000 carpenters in northern California.

Estimated Completion Date: Fiscal year 1969.

**1.4.04 CENTRAL WASHINGTON STATE
COLLEGE
ELLENSBURG, WASH.**

GRANT NO. 91-51-66-51
91-51-68-39

Principal Staff: Dr. Clayton C. Denman, Department of Anthropology.

Project Title: Ethnic Differences and Historical Changes in Manpower Resources of a Small Town

Objectives and Procedures: This study is concerned with a community which, deprived of its major sources of employment and beset by ethnic group division, is being bypassed by economic growth and development. Data collected through interviews with business owners, managers, and employees in Cle Elum, Wash., provide a basis for an analysis of past and present ethnic traditions and employment patterns. This analysis is expected to give rise to suggestions for promoting employment opportunities for the town's citizens. More generally, the results may be useful in implementing future programs of manpower development in other economically stagnant communities in the United States.

Estimated Completion Date: Fiscal year 1969.

**1.4.05 COLUMBIA UNIVERSITY
NEW YORK, N.Y.**

GRANT NO. 91-34-67-58

Principal Staff: Dr. Herbert Hyman, Chairman, Department of Sociology.

Project Title: Occupational Choice and Its Determinants Among Totally Blind Individuals

Objectives and Procedures: As part of a larger study of the patterns of communication, perception, and social behavior among the blind, this research examines blindness as a barrier to gaining knowledge of environment, and consequently, to choosing a career. Its objective is to contrast patterns of occupational choice between blind Negroes and whites and between those blinded before the age of 15 years and those blinded later in life. The developmental processes underlying these patterns are being examined through a parallel study of totally blind children and their families. Results of the study are expected to have a bearing on specialized and practical problems of career choice for other handicapped groups.

The present analysis uses the following groups drawn from the larger sample of the total study: 180 white and 90 Negro adults, totally blind, living in northern cities; and 80 white and 20 Negro children, totally blind, 10 to 15 years of age, living in New York City. In-depth interviews have been held with the adults, and a sighted family member was also interviewed concerning the blind person's immediate and larger environment and how he had been socialized or resocialized. Parallel interviews were conducted with the children; their mothers were questioned about the patterns of childrearing followed with the blind child and with his siblings; and sighted siblings were interviewed whenever available regarding their own development within the family and their orientation toward the blind child. Computer analysis is being used to trace individual and aggregate patterns of learning.

Estimated Completion Date: Fiscal year 1969.

**1.4.06 COLUMBIA UNIVERSITY
NEW YORK, N.Y.**

GRANT NO. 91-34-68-26

Principal Staff: Dr. William J. Goode and Dr. Cynthia F. Epstein, Department of Sociology.

Project Title: Social Factors Affecting Utilization and Mobilization of Trained Personnel in Elite Occupations

Objectives and Procedures: This study will focus on members of social groups and social categories

(such as women and minority group members) whose participation in prestige occupations (such as law and scientific research) is effectively blocked by self-exclusionary practices and pressures from outside the economic sphere. Answers will be sought for the following questions:

1. Which occupational environments are particularly conducive to the utilization of professionals whose social origins or attributes are not typically associated with the occupational role?

2. What are the consequences for occupational mobility, achievement, and productivity of those whose socioeconomic backgrounds do not conform to the commonly accepted model?

3. What changes in social institutions would result in increased demand for the talents of professionals from social groups previously blocked from the elite occupations?

The study will be based on information from interviews, census data, and relevant literature.

Estimated Completion Date: Fiscal year 1969.

1.4.07 CORNELL UNIVERSITY ITHACA, N.Y.

GRANT NO. 91-34-67-48

Principal Staff: Dr. William H. Friedland, New York State School of Industrial and Labor Relations.

Project Title: Migrant Labor as a Form of Intermittent Social Organization

Objectives and Procedures: This research extends and expands upon a 1-year pilot study previously conducted under a grant (see 3.2.09). The present study is concerned with the problems inherent in the seasonal farm labor camps and crews on the eastern seaboard. Questions directly relevant to public policy are also explored. Data collected on mobility and on the economic and demographic backgrounds of the migrants are being used to assess the living expenses, wage levels, and working conditions of those still in the migrant work force, and the social characteristics, job-finding experiences, and general adaptation of migrant dropouts who have settled in northern communities.

The population studied is confined to a sample of southern Negroes working in migrant labor camps in New York State, drawn randomly and stratified by

location within the State, major crop, and size of farm. Students were placed in the camps as laborers and researchers, working and living with the migrants while collecting data. A systematic study of a small random sample of the crews originally studied is also being conducted to determine the validity of the data gathered by the undergraduate researchers.

Estimated Completion Date: Fiscal year 1969.

1.4.08 HARVARD UNIVERSITY CAMBRIDGE, MASS.

GRANT NO. 91-23-68-06
91-23-68-50

Principal Staff: Dr. John T. Dunlop, Department of Economics.

Project Title: A Program and Policy Analysis of the "Concentrated Employment Program"—Boston, Mass.

Objectives and Procedures: The federally supported Concentrated Employment Program, operated by Action for Boston Community Development, Inc., is an experimental manpower program designed to deal specifically with the employment problems of the urban poor. While the program is basically concerned with the successful placement of workers, it is also generating important information about unemployment in the slums, employer reaction to various manpower programs, and the effectiveness of new techniques to facilitate the transition from unemployment to employment. This knowledge and experience, which would ordinarily be known only to operating personnel in local manpower programs, are being collected and documented by the researcher. Manpower problems and solutions common to all slum neighborhoods are being distinguished from those unique to Boston, and recommendations will be made concerning the possible application of successful techniques to programs in other cities.

Interviews were held with the program's operating personnel and their supervisors; other subcontractors; the Massachusetts Division of Employment Security; other agencies and organizations collaborating in the program; and workers and employers participating in the program. Data collected on job opportunities, worker characteristics, work histories, training and

1.4 Active Research Project Grants

education, and unemployment rates are being analyzed to identify significant socioeconomic variables to aid in evaluating the program.

Estimated Completion Date: Fiscal year 1969.

1.4.09 UNIVERSITY OF HOUSTON HOUSTON, TEX.

GRANT NO. 91-46-68-48

Principal Staff: Dr. Louis H. Stern, Department of Economics and Finance.

Project Title: Relationship Between Unemployment and Commuting Within Geographical Areas

Objectives and Procedures: This pilot study will assess the adequacy of selected standard metropolitan statistical areas (SMSA's) as labor areas. Specifically, it will seek to determine whether the aggregate unemployment rate for a given SMSA can be interpreted as an indicator of economic conditions in any geographical subdivision of the area. It will test the hypothesis that the ability of workers to commute from home to work within an SMSA will generally equalize the unemployment rate for the whole area, given adjustments for the particular composition of the labor force in the geographic subsections of the SMSA. A selection will be made of at least 15 SMSA's suitable for testing the hypothesis. Of these, two will be chosen for more detailed geographic area analysis. Data for this study will be drawn from the 1960 census.

Estimated Completion Date: Fiscal year 1969.

1.4.10 INDIANA UNIVERSITY FOUNDATION BLOOMINGTON, IND.

GRANT NO. 91-16-66-32
91-16-67-40

Principal Staff: Dr. C. L. Christenson and Dr. W. H. Andrews, Department of Economics and Division of Economic Research.

Project Title: A Study of Labor Force Adaptation to Technical Change in the Coal Industry

Objectives and Procedures: This study analyzes changing skill requirements and adjustment problems in an industry where rapid technological development has affected sizable segments of the labor force. The experience of the U.S. bituminous coal mining industry between 1956 and 1965 is being examined to determine the relations of productivity and employment changes to such variables as geographic distribution of production, production in different types of mines, labor productivity, extent of total or partial unemployment, and degree of regional economic development in the areas involved. The adequacy of arrangements for retirement, transfer, and retraining of workers displaced during this period is being assessed. Research procedures include statistical analysis of available data and the gathering of material through interviews at employment and training centers.

Estimated Completion Date: Fiscal year 1969.

1.4.11 MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS.

GRANT NO. 91-23-67-41

Principal Staff: Dr. David P. Taylor and Dr. Michael J. Piore, Sloan School of Management.

Project Title: A Comparison and Evaluation of Government-Supported and Privately-Financed Training Programs

Objectives and Procedures: This study will compare several federally subsidized on-the-job training programs with several privately financed on-the-job training programs in the same occupational fields. The programs will be compared on the basis of six criteria: (1) Demographic, educational, and pretraining work backgrounds of trainees; (2) posttraining work histories of trainees, both program graduates and drop-outs; (3) program content; (4) techniques of instruction; (5) cost of training; and (6) distribution of the costs and benefits of training among participants, employers, and consumers. From compiling and analyzing these data, the researchers aim to develop criteria for allocating training funds and an efficient format for collecting data on training programs.

Data will be compiled on several federally subsidized training programs in four occupational fields in the

Boston area. Interviews will be conducted with program directors, trainees, and employers in the four fields.

Estimated Completion Date: Fiscal year 1969.

**1.4.12 UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS.**

GRANT NO. 91-23-66-55

Principal Staff: Dr. Everett S. Lee, Department of Sociology and Anthropology.

Project Title: Spatial Mobility and Manpower Development

Objectives and Procedures: This study examines the implications for manpower development and training of migration to, from, and within the States of Pennsylvania and Mississippi. Census data are being used to determine the extent to which the two States are dependent upon manpower from other States, the extent to which the two States are developing manpower for other States, and the types of manpower migrating to and from the two States. Standard demographic techniques of analysis are being applied to the volume or rate of in- and out-migration for specific race-sex-education-age groups.

Estimated Completion Date: Fiscal year 1969.

**1.4.13 UNIVERSITY OF MASSACHUSETTS
AMHERST, MASS.**

GRANT NO. 91-23-68-27

Principal Staff: Solomon Barkin, Labor Relations and Research Center.

Project Title: A Study of National Manpower Policies in OECD Countries

Objectives and Procedures: This study will distill the manpower experience of the countries belonging to the Organisation for Economic Co-operation and Development (OECD) and the research generated by OECD in order to interpret current manpower programs in the United States. Considering the manpower field as an integrated system, the study will cover the following subject areas: Definition of objectives;

nature of the national economic and social problems; systems for determining priorities for their respective solutions; policymaking systems; research; statistics and data collection resources; administration of programs for manpower recruitment; development of the appropriate quality of manpower; stimulation of the creation of the demand for labor; organization and operation of the job market; systems of enterprise; and programs for optimum productivity of the work force.

The report will be based on the resources and knowledge acquired by the researcher during his 5 years with the Manpower and Social Affairs Directorate of the OECD. Further information will be obtained as required through correspondence with officials in the individual OECD countries and the OECD itself, and through library research.

Estimated Completion Date: Fiscal year 1969.

**1.4.14 MICHIGAN STATE UNIVERSITY
EAST LANSING, MICH.**

GRANT NO. 91-24-66-30

Principal Staff: Dr. Michael E. Borus, School of Labor and Industrial Relations.

Project Title: Research to Demonstrate the Uses of Unemployment Insurance Wage Reports

Objectives and Procedures: The goal of this project is to demonstrate that individual wage reports are potentially valuable as a source of information in the study of manpower problems. To illustrate the applicability of the wage reports to manpower research, three substudies are being made, using the reports as primary sources of data: (1) Post-retraining earnings and the unemployment experience of retrained workers are being examined to supplement and check the validity of information derived from present retraining followups and to determine which groups profit most from retraining; (2) the costs and benefits of various vocational education programs are being compared; and (3) the accuracy of data obtained through personal interviews and mail questionnaires is being checked through a comparison with parallel information secured from the wage reports and Social Security records.

Estimated Completion Date: Fiscal year 1969.

1.4 Active Research Project Grants

1.4.15 THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICH.

GRANT NO. 91-24-67-56

Principal Staff: Dr. Louis A. Ferman, Institute of Labor and Industrial Relations.**Project Title:** Study of the Correlates of Long-Term Unemployment**Objectives and Procedures:** This study is concerned with the degree of influence exerted by age, education, literacy, and race on the prolongation of unemployment. Statistical techniques are being used to isolate these interlocking variables and measure their relative contribution to long-term unemployment; to the occupational and geographical mobility of the long-term unemployed; and to the willingness and capacity of these workers to seek retraining as well as their capacity to score satisfactorily on vocational tests, and therefore qualify for a job or training program. Study findings will provide new background material for legislative planning to alleviate long-term unemployment.

Data assembled by the Michigan Employment Security Commission—responses from intensive interviews held in 1962 with 2,114 Detroit residents who had been unemployed 26 weeks or longer—have been made available to the researcher. Subsamples of the group were given vocational tests and counseling and followup interviews in 1964 and 1966, and additional data will be drawn from this source. Other demographic and ecological data associated with Detroit inner-city areas are being used to relate the characteristics of inner-city life to employment patterns of inner-city residents.

Estimated Completion Date: Fiscal year 1969.1.4.16 THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICH.

GRANT NO. 91-24-68-37

Principal Staff: Gordon Barhydt, Institute of Labor and Industrial Relations.**Project Title:** Centralized Information Service in Industrial Relations: A Feasibility Study**Objectives and Procedures:** This study will consider the feasibility of centralizing some information services in industrial relations centers. It will: (1) Identify

the U.S. and Canadian colleges and universities which use industrial relations information and specify their needs; (2) survey the information resources which are directly accessible and determine any areas of specialization; (3) assess the scope and content of this core of information needs and common resources; and (4) recommend methods and establish costs for processing and disseminating the information on a centralized basis.

Surveys and user interviews will be carried out in clusters according to geographic region, using as large a sample as possible. A small committee representing libraries and institutes will participate in a 2-day seminar on the results and conclusions of the study.

Estimated Completion Date: Fiscal year 1969.1.4.17 THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICH.

GRANT NO. 91-24-68-41

Principal Staff: Dr. Martin Gold, Institute for Social Research.**Project Title:** An Agency's Effort to Improve the Future of Adolescent Boys in the Inner City**Objectives and Procedures:** This study will describe and assess a 1961-65 experimental program of the Chicago Boys Club which sought to combat juvenile delinquency. In addition to the Club's traditional building-centered recreational activities, the program provided academic and vocational counseling and job placement and worked with community institutions to increase vocational education, apprenticeship, jobs, and recreational opportunities for adolescent boys in two inner-city target areas.

During the program, detailed data were gathered on the boys' aspirations, perception of opportunities, current plans and efforts to prepare themselves for future employment, and school attitudes and performance. Two control areas with matching demographic characteristics were constructed from surrounding census tracts. Variables relevant to the condition of the populations and goals of the program were measured at the beginning and end of the program. Data were collected through interviews with representative samples of the boys in each area who were and were not participating in the program, their mothers, community leaders, and personnel throughout the Chicago Boys Club organi-

zation. Further material was gathered from police, court, and school records on the behavior and performance of the boys in the study. These data will be explored in detail and analyzed in terms of the program's impact on target adolescents.

Estimated Completion Date: Fiscal year 1969.

1.4.18 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

GRANT NO. 91-24-69-04

Principal Staff: Sandra S. Tangri.

Project Title: Effects of Background, Personality, and College Experience on Women's Post-Graduate Employment

Objectives and Procedures: This project is a follow-up to a study which associated background factors, personality characteristics, and college experience of college women with high commitment to traditionally masculine professions. The present study will attempt to answer the following questions about these same women 2 years after graduation:

1. What factors associated with aspirations predict perseverance in the chosen field?
2. What factors affect occupational commitment?
3. For what kind of woman does early marriage make career pursuits more likely?
4. What role do husbands play in these outcomes?

The population consists of 200 women classified according to their vocational plans at time of graduation. Questionnaires, to be mailed to those who cannot conveniently be interviewed, will seek information on work, educational, social, and marital experiences since college, as well as plans for the future.

Estimated Compilation Date: Indefinite.

1.4.19 THE UNIVERSITY OF MICHIGAN— WAYNE STATE UNIVERSITY ANN ARBOR, MICH.

GRANT NO. 91-24-66-03

Principal Staff: Dr. Louis A. Ferman, Institute of Labor and Industrial Relations.

Project Title: Community Organization and the Mobilization of Resources for Manpower Development Programs

Objectives and Procedures: The ultimate objective of this project is to test the feasibility of using various social and economic variables to predict local receptivity to Federal development programs and to determine the number and kinds of programs likely to be successful in a given community. The researcher approached the problem of community participation in Government programs by exploring several characteristics of community structure that accounted for variations in local receptivity to Federal programs.

Data were collected from the documents and official records of local and State agencies in all communities in the United States with populations of over 25,000. Multivariate analysis was used to relate the variables to measures of community resource mobilization. Other appropriate statistical techniques were used in developing actuarial statements.

Estimated Completion Date: Fiscal year 1969.

1.4.20 UNIVERSITY OF MINNESOTA MINNEAPOLIS, MINN.

GRANT NO. 91-25-67-10

Principal Staff: Dr. Herbert C. Heneman, Jr. and Dr. George Seltzer, Industrial Relations Center.

Project Title: Manpower Planning and Forecasting in the Firm: An Exploratory Probe

Objectives and Procedures: This study assesses the extent and nature of manpower planning and forecasting in the firm, the techniques employed, and the corporate uses of planning data. The relevance of those variables used by firms in forecasting their manpower requirements to methods of forecasting aggregate labor demand is being examined. Findings will provide hypotheses for possible further research into the problems of manpower planning and forecasting.

Data are being obtained by questionnaire and interview from a sample of firms in the Minneapolis-St. Paul metropolitan area. Corporate officers are being asked to explain their forecasting and the role of manpower planning in the decisionmaking process of the firm.

Estimated Completion Date: Fiscal year 1969.

**1.4.21 THE RESEARCH FOUNDATION OF
STATE UNIVERSITY OF NEW
YORK
ALBANY, N.Y.**

GRANT NO. 91-34-67-07

Principal Staff: Dr. Haskel Benishay, Department of Finance and Management Science.

Project Title: Development of Stochastic Labor Force and Working Life Models

Objectives and Procedures: The objective of this research is to construct and test new mathematical models for use in studying the dynamics of the labor force and its components. Probabilistic aspects of the labor force process—lifespan distributions, births and deaths per period, participation and unemployment rates, and numbers of accessions and retirements—are generally treated in existing models as random variables resulting from the process. Models developed in the present study will treat these phenomena as the determinants of the labor force process, and allow for their fluctuations in evaluating and forecasting manpower reserves and flows of the labor force and its subcategories.

Probability and mathematical theory is being applied to currently available data on the labor force to construct the models. Computer simulation techniques are being used to check the logic of models and the direction of change resulting from variation in underlying assumptions.

Estimated Completion Date: Fiscal year 1969.

**1.4.22 NORTH TEXAS STATE UNIVERSITY
DENTON, TEX.**

GRANT NO. 91-46-68-38

Principal Staff: Dr. Sam B. Barton, Department of Economics.

Project Title: Measurement of Workmen's Compensation Underwriter Performance as a Factor in Lost Time from Industrial Injuries, and Related Indices

Objectives and Procedures: This study will develop and test indices that measure variations in the efficiency and adequacy with which workmen's compensation in-

surance underwriters handle injury claims. The researcher anticipates that such indices, by stimulating better handling of industrial injury claims, will contribute significantly to reducing the man-hours lost to industrial injuries. A sample of 5,000 to 6,000 cases drawn from the 65,000 to 70,000 claims processed during the year September 1966–August 1967 by the Texas Industrial Accident Board will provide a significant cross-section of cases handled by the 20 major insurance companies operating in Texas. Data to be analyzed will include industry, occupation, description of accident, medical report, nature of injury, extent of disability, hospitalization, weekly wage, weekly benefits, type of settlement, issues in dispute, disposition of case, and time lapse between the stages of claim processing.

Estimated Completion Date: Fiscal year 1969.

**1.4.23 NORTHEASTERN UNIVERSITY
BOSTON, MASS.**

GRANT NO. 91-23-67-49

Principal Staff: Dr. John Duncan A. Ferguson, Department of Sociology.

Project Title: A Pilot Study of Career Decision-making

Objectives and Procedures: The main effort in this study is directed toward analyzing crucial career decisions which determine an individual's subsequent employment in particular jobs or occupations. Such decisions might include a worker's refusal of a particular job in his company and his being bypassed for promotion later, or his refusal to undergo training which may not be offered again. Secondary objectives are to compare job satisfaction among workers in an urban neighborhood and to determine training program needs in this same neighborhood.

Information on career aspirations and job history is being obtained from a sample survey of residents of an ethnically and racially mixed, primarily low-income area of central Boston, now undergoing urban renewal. A random sample of about 200 male residents, drawn from this population, is being interviewed regarding career history, present occupational goals, and the considerations that governed their choice of jobs in the past. Emphasis is placed on the respondent's perception of the crucial turning point in his career.

Estimated Completion Date: Fiscal year 1969.

**1.4.24 NORTHEASTERN UNIVERSITY
BOSTON, MASS.**

GRANT NO. 91-23-67-57

Principal Staff: Dr. Morris A. Horowitz and Dr. Harold M. Goldstein, Department of Economics.

Project Title. Hiring Standards for Paramedical Manpower

Objectives and Procedures: This project tests the hypothesis that persistent shortages of paramedical personnel are caused by unrealistic hospital hiring standards. The education, training, and work experience required of new employees and how these standards were developed are being analyzed and compared with duties actually performed in the various paramedical occupations. Findings are expected to provide some important insights into future training needs and a basis for possible reevaluation of hiring standards for paramedical personnel.

The researchers are interviewing the administrators and personnel directors of a stratified sample of about 24 hospitals in the Greater Boston area. Structured questionnaires are being used to obtain detailed information on job descriptions and hiring standards for each of the paramedical occupations and on the general characteristics of each occupation, including wage rates, turnover, promotion opportunities, and training offered on the job. Unstructured questionnaires are being used in interviewing a chief executive at each hospital for his comments and suggestions on the diverse problems related to employment in the paramedical field.

Estimated Completion Date: Fiscal year 1969.

**1.4.25 UNIVERSITY OF OREGON
EUGENE, OREG.**

GRANT NO. 91-39-66-38

Principal Staff: Dr. Donald A. Watson, Bureau of Business and Economic Research.

Project Title: An Input-Output Model for Use in Manpower Projections for a State

Objectives and Procedures: This project aims to design a system for collecting and analyzing data for use in constructing income and product accounts for a State. An input-output flow model and a workable

model for making short-term forecasts of population, labor force, and industrial employment are being developed, using Oregon as the example. Data on the rates of technological change in various industries are being used to project the size of occupational groups in order that plans for vocational education can be made. Existing analytical models and data, especially projections of industry growth made by the University's Bureau of Business and Economic Research and projections of population and labor force made by the Oregon State Board of Census, are being revised and integrated into the development of the model.

Estimated Completion Date: Fiscal year 1969.

**1.4.26 UNIVERSITY OF OREGON
EUGENE, OREG.**

GRANT NO. 91-39-68-17

Principal Staff: Dr. Steven E. Deutsch, Department of Sociology.

Project Title: Local Union Leadership and Technological Change

Objectives and Procedures: This study will examine the perspective, experiences, attitudes, and policy orientations of local union leaders concerning the problems of automation and unemployment and the role of unions and of government in dealing with these manpower and economic questions. Data will be derived from: (1) A comprehensive survey and synthesis of relevant literature; (2) a questionnaire survey of 350 local union officers in 15 Ohio industrial centers; and (3) an interview survey of 170 local union officers in Hawaii.

Estimated Completion Date: Fiscal year 1969.

**1.4.27 PURDUE RESEARCH FOUNDATION
LAFAYETTE, IND.**

GRANT NO. 91-16-67-43

Principal Staff: Dr. Carolyn Cummings Perrucci, Departments of Sociology and Engineering Administration.

Project Title: The Female Engineer and Scientist: Factors Associated With the Pursuit of a Professional Career

Objectives and Procedures: This research is concerned with womanpower as a relatively untapped source of talent for meeting the national demand for engineering and science graduates. Employed and unemployed women graduates in engineering and science are compared with respect to social background, education, career history, temporal patterns in marriage and childbearing, nature and extent of technical obsolescence, and attitudes toward work and career. Employed women graduates in these fields are also compared with their male counterparts with respect to salary, level of technical responsibility, and level of supervisory authority.

Randomly selected subsamples of female engineering and science graduates were obtained from a larger study of Purdue alumni. Fifteen subfields within engineering and science were represented, and a total of 430 women were sampled, with a return rate of 70 percent. The comparisons with male engineering and science alumni utilize data developed under a grant (see 2.3.11).

Estimated Completion Date: Fiscal year 1969.

1.4.28 PURDUE RESEARCH FOUNDATION LAFAYETTE, IND.

GRANT NO. 91-16-68-36

Principal Staff: Dr. William K. LeBold, Engineering Administration.

Project Title: A Study of Professional Job Satisfaction Dimensions and Their Correlates

Objectives and Procedures: This study will identify the dimensions of engineers' and scientists' job satisfaction and measure the extent to which these elements are influenced by individual work history, educational background, work environment, and other determinants. The study will also relate the dimensions of job satisfaction to professional activities and productivity and to job rewards. The project will utilize data gathered from two major questionnaire surveys involving nearly 7,000 engineers and scientists: (1) A national sample of practicing engineers polled in 1964 and (2) a 1965 survey of Purdue University graduates with degrees in engineering, mathematics, and the physical sciences.

Estimated Completion Date: Fiscal year 1969.

1.4.29 UNIVERSITY OF ROCHESTER ROCHESTER, N.Y.

GRANT NO. 91-34-66-48

91-34-67-53

Principal Staff: Dr. Dean Harper, Department of Sociology.

Project Title: The Relationship of Migrant Workers' Attitudes and Behavior to Their Work Environment

Objectives and Procedures: This project continues research begun under an earlier grant. It describes the relative impact of environmental determinants of migrant worker behavior, attitudes, and productivity, and presents case studies of a sample of workers.

Data consist of the results from structural questionnaires administered to 141 migrants and 16 taped interviews. This material is being examined for recurring themes and issues that appear significant in the lives of migrant farmworkers.

Estimated Completion Date: Fiscal year 1969.

1.4.30 RUTGERS—THE STATE UNIVERSITY NEW BRUNSWICK, N.J.

GRANT NO. 91-32-68-74

Principal Staff: Dr. Jackson Toby and Leon R. Jansyn, Department of Sociology.

Project Title: The Prospects for Success of Ex-Offenders as Small Business Proprietors

Objectives and Procedures: This project will examine the social and economic relationships of the ex-offender who manages a small business enterprise. It will explore the attractiveness of self-employment to the ex-offender and its value in overcoming problems of resocialization. The study will be conducted with the possibility in mind of establishing a guidance program for ex-offenders who wish to become self-employed. The results should be applicable to disadvantaged entrepreneurs in general.

Interviews will be conducted with 12 former offenders who have been successful in their own business enterprises and with 12 who have been unsuccessful.

ful. The interviews will focus on ex-offenders' inability to accept supervision, need to avoid dependency, educational deficiencies, and other relevant variables.

Estimated Completion Date: Fiscal year 1969.

**1.4.31 SAN DIEGO STATE COLLEGE
SAN DIEGO, CALIF.**

GRANT NO. 91-05-68-32

Principal Staff: Dr. Oscar J. Kaplan, Department of Psychology.

Project Title: A Critical Review of Current Programs for Training and Placement of Unemployed Middle-Aged and Older Workers in San Diego County, Calif.

Objectives and Procedures: This project will identify deficiencies in existing programs for securing the employment of persons aged 45 and over in San Diego County and will design an action program for increasing the hiring of these persons. Interviews will be conducted with key San Diego employers, employment service personnel, union officials, educators, and certain public officials. In addition, information will be gathered on older applicants currently seeking work through the San Diego office of the California Department of Employment and on past employment experiences of this age group. Finally, relevant national and foreign literature will be reviewed.

Estimated Completion Date: Fiscal year 1969.

**1.4.32 UNIVERSITY OF SANTA CLARA
SANTA CLARA, CALIF.**

GRANT NO. 91-05-68-72

Principal Staff: Thomas M. Martinez, Department of Sociology.

Project Title: Past and Present Counseling and Placement Procedures In Private Employment Agencies—An Empirical Study

Objectives and Procedures: This study will trace and analyze the historical development of private em-

ployment agencies in the United States. It will examine factors in their early development, sources of support, use of different counseling and placement techniques, relationship with public agencies, and major problems at present. In addition, the study will investigate the nature of the counseling and placement techniques used by private employment agencies, with emphasis on the treatment of minority applicants. The impact of these techniques on applicants' self-images and on their career patterns will be explored. Data will be gathered on how the agencies recruit job applicants, what psychological devices they use in counseling different applicants, whether and how the agencies cater to employers who wish to discriminate in hiring, and whether the experience of being counseled by a private agency affects job applicants' career patterns.

Data will be gathered from library sources, interviews with several employment association leaders and agency owners, and observation at selected private employment agencies in the San Francisco Bay area.

Estimated Completion Date: Fiscal year 1969.

**1.4.33 SONOMA STATE COLLEGE FOUNDATION
ROHNERT PARK, CALIF.**

GRANT NO. 91-05-68-31

Principal Staff: Dr. Cheryl J. Peterson, Department of Political Science.

Project Title: Socioeconomic Characteristics of the California Farm Labor Force

Objectives and Procedures: This research will describe the contemporary farm labor force in California and seek to relate its identifiable socioeconomic characteristics to employment patterns by such breakdowns as crop and area. Relevant problem areas, such as housing and transportation, will be identified and evaluated in light of the farm manpower situation. Consideration will be given to solutions to these problems. This study will use data from a 1-percent random sample of persons with 1965 earnings in California agriculture.

Estimated Completion Date: Fiscal year 1969.

1.4.34 SOUTHERN ILLINOIS UNIVERSITY CARBONDALE, ILL.

GRANT NO. 91-15-66-34
91-15-67-50

Principal Staff: Dr. Herman R. Lantz and Dr. Ernest K. Alix, Department of Sociology.

Project Title: A Study of the Relationship Between Resignation and Job Retraining

Objectives and Procedures: This project deals with the problem of individual resignation, a feeling that no change for the better is preferable to the disappointment that may come with efforts to change. Knowledge about the nature of resignation will aid officials who try to introduce change into the lives of unwilling people by educational and counseling programs. In particular, this study is relating an individual's feelings of resignation to participation in job retraining programs. A questionnaire is being used to obtain data from a random sample of 600 retrainees being tested at the West Frankfort, Ill., Demonstration Manpower Program. The dimensions of resignation are being abstracted from relevant literature and incorporated into a scale. Resignation scale scores are being matched against favorable or unfavorable response toward retraining.

Estimated Completion Date: Fiscal year 1969.

1.4.35 STANFORD UNIVERSITY PALO ALTO, CALIF.

GRANT NO. 91-05-66-53
91-05-68-34

Principal Staff: Dr. Melvin W. Reder, Department of Economics.

Project Title: International Differences in Unemployment Rates of New Entrants to the Labor Force

Objectives and Procedures: This project considers the question of how a number of Western European countries have been able to maintain rates of unemployment consistently and appreciably lower than those of the United States over the past decade. The researcher is attempting to measure the relative impor-

tance of the lower unemployment rates of young people and recent immigrants in explaining overall differences in unemployment rates, to analyze the causes of these differences and to appraise their relative importance, and to consider the implications of the analysis for public policy. Using unemployment data for recent labor force entrants in the United States and in several Western European countries, conventional econometric techniques are being exercised to relate international and regional differences in the rates to differences in relevant economic structures and institutions.

Estimated Completion Date: Fiscal year 1969.

1.4.36 TEMPLE UNIVERSITY PHILADELPHIA, PA.

GRANT NO. 91-40-68-08

Principal Staff: Dr. Karen Koziara, School of Business.

Project Title: Labor Force Nonparticipation of Males in Urban Poor Areas

Objectives and Procedures: This study is concerned with the prevalence of nonparticipation in the labor force among male slum residents of prime working age. It is developing and testing methods for isolating economic and social characteristics of the nonparticipants and contrasting them with the characteristics of their employed counterparts. The major variables to be dealt with include previous employment experience, income incentives, social and familial surroundings, and traditional employment barriers. A second purpose of the study is to determine whether the research methods used in this project represent a valid approach to the problem of labor force nonparticipation and its causes.

A sample of labor force participants and nonparticipants has been drawn from a population of males aged 20 to 64 years residing in Philadelphia slums. Data are being collected through a specially designed questionnaire, administered in personal interviews, covering family background, peer group labor force patterns, income sources, income expectations, personal employment history, and attitudes toward work and leisure.

Estimated Completion Date: Fiscal year 1969.

**1.4.37 VANDERBILT UNIVERSITY
NASHVILLE, TENN.**

GRANT NO. 91-45-67-19

Principal Staff: Dr. T. Aldrich Finegan, School of Economics.

Project Title: The Economics of Labor Force Participation

Objectives and Procedures: This grant supports the final phase of an ongoing study of labor force participation rates of various population groups in the United States. The objectives of the total study are to identify and explain the economic determinants of the various rates and to assess the policy implications of the patterns of participation and their determinants.

The effects of wage rates, unemployment rates, and supply and demand conditions are being assessed primarily from intercity regressions for three census years—1960, 1950, and 1940. Time series data on participation, unemployment, and other economic indicators are being examined to gain further insight into the cyclical sensitivity of labor force participation rates and to depict recent trends. Census data are being used to determine the effects of personal and family characteristics on participation decisions. These data are being analyzed, and results of the entire study will be published independently in book form.

Estimated Completion Date: Fiscal year 1969.

**1.4.38 WAYNE STATE UNIVERSITY
DETROIT, MICH.**

GRANT NO. 91-24-68-29

Principal Staff: Dr. Robert A. Mendelsohn, Department of Psychology.

Project Title: A Proposal to Investigate the Personality and Attitudinal Characteristics of Career and Homemaking Oriented Women

Objectives and Procedures: This study will investigate the personality characteristics, conceptions of masculine and feminine roles, and bases of self-esteem of career women and homemakers. It will attempt to explain why, when so many women work, so few are

engaged in work which is maximally productive to society and to themselves. The study will contrast college-educated women who are actively engaged in career activities with college-educated women who have adopted homemaking roles predominantly and/or exclusively. Differences will also be established between these two groups and college-educated men.

A personality test will be given to a stratified random sample of 1,500 women graduates and to a sample of 500 male graduates of Wayne State University. Subjects will also be asked to answer a questionnaire concerning their marital status and job backgrounds.

Estimated Completion Date: Fiscal year 1969.

**1.4.39 WEST VIRGINIA UNIVERSITY
MORGANTOWN, W. VA.**

GRANT NO. 91-52-68-10

Principal Staff: Dr. John D. Photiadis, Appalachian Center.

Project Title: Sociopsychological Determinants of Migration and Adjustment of West Virginians in Cleveland

Objectives and Procedures: This study will focus on West Virginia and other Appalachian migrants to Cleveland who have moved from the ghetto to other areas of the city. Occupational skills and personal, social, and psychological factors will be analyzed as determinants of the decision to migrate, adjustment in the city, and the decision by some to return to Appalachia. Migrants living outside the Cleveland ghetto will be compared with: (1) Migrants living in the ghetto; (2) those who have returned from Cleveland to West Virginia; and (3) those of the same age and education who never left West Virginia.

This project will incorporate information derived in two closely related studies. One, conducted by the same institution (Appalachian Center, West Virginia University), compared migrants from West Virginia living in the Cleveland ghetto with West Virginians of similar age and education who had never left the State or who had returned to West Virginia from the city. The second, conducted by the Bureau of Social Science Research, Inc. (see 1.1.04), includes as its first phase the establishment of a personal and occupational profile of the Southern migrant population in Cleveland.

1.4 Active Research Project Grants

Questions used in the surveys for these studies will be incorporated in the interviews to be conducted in the present project. Some 400 interviews will provide additional information on West Virginians living in the suburbs of Cleveland and on those living in the areas between the ghetto and the suburbs. Analysis of the data will take into account information gathered in all three studies.

Estimated Completion Date: Fiscal year 1969.

1.4.40 UNIVERSITY OF WISCONSIN
MADISON, WIS.

GRANT NO. 91-53-68-33

Principal Staff: Dr. Jack Barbash, Department of Economics.

Project Title: Labor Movement Participation in National Manpower Programs of Selected Countries of Western Europe; Implications for U.S. Government-Labor Relationships

Objectives and Procedures: This study will consider the problem of how a democratic society enlists the active involvement of an autonomous labor movement, with its shortrun, sectional interests, in the formulation and accomplishment of longrun, nationally oriented manpower objectives. Inferences for U.S. policy will be drawn from an examination of this problem in selected European countries—the United Kingdom, West Germany, Austria, Sweden, Denmark, the Netherlands, and possibly Israel—all of which have developed well-established relationships between their labor movements and public manpower programs. Effects of these relationships will be assessed in terms of the special interests of the labor movement and of the relative success of public policies in each country. Interviews will be held in each country with union, management, and govern-

ment administrators concerned with manpower policies. Union decisionmaking activities will be observed and operating documents will be examined.

Estimated Completion Date: Fiscal year 1969.

1.4.41 UNIVERSITY OF WISCONSIN
MADISON, WIS.

GRANT NO. 91-53-69-03

Principal Staff: Dr. David Chaplin, Department of Sociology.

Project Title: Analysis of Private Household Employment in the United States from 1900 to 1966—An Exploratory Project

Objectives and Procedures: In order to suggest desirable and feasible reforms in the working conditions of domestics, this study will carry out an exhaustive analysis or reassessment of all available data on private household employment from 1900 to 1966. The following questions will be considered: (1) Whether private household employment among racial and ethnic minorities has been increasing or decreasing, and how such a change relates to the general decrease in total participation in this occupation; (2) whether minority group participation is a function of local labor supply or demand conditions; and (3) whether domestic work serves as a stepping stone to lower middle-class positions.

The researcher has already completed an analysis of data from the 1960 census and the 1/1000 sample census, and from a special 1965 Current Population Survey ordered by the Institute for Research on Poverty at the University of Wisconsin. The present study intends to analyze all other available data, with particular emphasis on Department of Labor surveys.

Estimated Completion Date: Fiscal year 1970.

1.5 PROJECTS ACTIVE ON JUNE 30, 1968—Research Contracts for the Bureau of Work-Training Programs (BWTP)¹³

1.5.01 ARIZONA STATE UNIVERSITY TEMPE, ARIZ.

CONTRACT NO. 41-7-005-3

Principal Staff: Dr. Calvin Daane, College of Education.

Project Title: The Development of Group Counseling Models for Potential Use in the Neighborhood Youth Corps Program

Objectives and Procedures: This project is developing and experimenting with group counseling methods prepared especially for enrollees in out-of-school and in-school Neighborhood Youth Corps (NYC) programs.

The NYC in-school program is designed to help youth from low-income families stay in school. By providing part-time work coupled with counseling and, when necessary, related remedial education and vocational training, the program works to increase the holding power of the schools. Enrollees are encouraged to remain in the program until graduation from high school.

The out-of-school program increases the employability of unemployed youth by providing the work experience, counseling, remedial education, and training that will enable them to return to school. Where return to school is not feasible, the program seeks to bring about an improvement in motivation and work habits that will lead to vocational training or employment.

Twelve rural and urban NYC programs, chosen because of their unusual success or their use of innovative counseling techniques, are being observed and their counseling procedures analyzed. Group counseling methods used in community agencies, universities, and group work institutes are also being studied and procedures which may be applicable to NYC programs are being identified.

Five group counseling models developed from this initial research are being tested, using NYC enrollees as subjects.

Status of Project: The project is to be completed during fiscal year 1969.

1.5.02 BUREAU OF SOCIAL SCIENCE RESEARCH, INC. WASHINGTON, D.C.

¹³ Requests for information concerning these contracts should be directed to the principal staff.

CONTRACT NO. 41-7-007-9

Principal Staff: Dr. Leonard H. Goodman.

Project Title: Economic Needs of Neighborhood Youth Corps Enrollees

Objectives and Procedures: This project will build on the findings of a pilot study completed under a Manpower Administration research grant (see 3.2.05). It analyzes the economic needs of in- and out-of-school NYC enrollees, measures the extent to which these needs are satisfied through the NYC program, and identifies the circumstances under which these needs are fulfilled or unfulfilled. (See 1.5.01 for a description of the in-school and out-of-school programs.) Findings are expected to provide a basis for assessing current NYC policies regarding employment and remuneration of enrollees.

A representative national sample of 2,000 NYC enrollees was selected and interviewed for basic information on enrollee income, expenditures, financial contributions to the family, and personal budgeting habits. This information is being analyzed to determine the respondents' patterns of allocating NYC income and the extent to which it covers their needs. Supplementary information was gathered on the socioeconomic environment of the respondents, and the size of the NYC project, type of sponsor, program characteristics, type of community, and size of school. Data on school-related expenses and information on the socioeconomic environment of enrollees are being verified by means of additional interviews with school and NYC project officials.

Status of Project: Field work has been completed and the final report is scheduled for fiscal year 1969.

1.5.03 FORDHAM UNIVERSITY BRONX, N.Y.

CONTRACT NO. 41-7-010-34

Principal Staff: Dr. Mary G. Powers, Gerald M. Shattuck, and Dr. Charles Elliot.

Project Title: The Job Supervisor's Role in Neighborhood Youth Corps Programs for Out-of-School Youth

Objectives and Procedures: The NYC job super-

visor, usually a regular employee of an NYC sponsoring agency (such as a city government, the public library system, or a public hospital), probably has closer contact with the out-of-school enrollee than does any other NYC official. (See 1.5.01 for a description of the out-of-school program.) This project is examining the present nature of the job supervisor's role in NYC out-of-school projects in New York City, focusing on the following: (1) The expectations of the national NYC and of the agency within which the job supervisor functions; and (2) the conception of the job, and its acceptance and performance by incumbents. In addition, the study will describe the demographic and social characteristics of job supervisors and will provide data to assist in the recruitment, training, and direction of job supervisors.

Initially, observational analysis of NYC out-of-school job supervision is taking place at different types of jobsites. Following this, a detailed study design will be developed, and interviewing of job supervisors, enrollees, and NYC staff personnel will be conducted. Analysis of NYC documents and related publications will supplement the data.

Status of Project: Completion is scheduled for fiscal year 1969.

1.5.04 THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, D.C.

CONTRACT NO. 41-7-004-9

Principal Staff: Dr. Regis H. Walther.

Project Title: A Study of the Effectiveness of Selected Out-of-School Neighborhood Youth Corps Programs

Objectives and Procedures: Building on the work completed in an earlier study (see 2.1.04), this project aims to analyze the comparative effectiveness of selected urban out-of-school NYC projects (Cincinnati, Ohio; Durham, N.C.; East St. Louis, Ill.; and St. Louis, Mo.) in terms of facilitating enrollees' adjustment to the world of work and to the community environment. The researcher will:

1. Conduct a followup study of 1,600 subjects—both enrollees and control groups in the four cities.
2. Study six program components which appear to be unusually successful in contributing to specific pro-

gram goals. Among the program components to be studied will be remedial education, NYC-Employment Service cooperative agreements, skill training, and job development.

3. Analyze group counseling methods at one site using experimental and control groups.

4. Prepare guides to assist sponsors in improving their own programs.

Status of Project: A final report is due in fiscal year 1969.

1.5.05 THE UNIVERSITY OF MICHIGAN ANN ARBOR, MICH.

CONTRACT NO. 41-8-002-24

Principal Staff: Dr. Robert L. Kahn and Dr. Robert P. Quinn.

Project Title: Integrating the Chronically Unemployed Into the Work Role

Objectives and Procedures: A major auto manufacturer is currently conducting a program aimed at training and counseling inner-city chronically unemployed individuals who are being recruited into its ranks. Evidence from a number of sources indicates that the program has been successful. The company is using a wide variety of techniques to sustain job interest and retention. For possible use by other companies, the present study will analyze the operation of the company's present program and attempt to isolate specific aspects which are making the program effective.

In addition, the study will analyze the strengths and weaknesses of the present program and develop new techniques for training and counseling the hitherto "unemployable."

Data will be collected in two phases. An observational analysis will involve firsthand observation by the research staff of all phases of the company's program. In a turnover study, personal interviews will be conducted with employees who participated in the program and who subsequently left the company to derive information on their separation and attitudes toward the program.

Status of Project: To be completed in fiscal year 1969.

**1.5.06 UNIVERSITY OF MINNESOTA
MINNEAPOLIS, MINN.**

CONTRACT NO. 41-7-008-25

Principal Staff: Dr. Richard E. Sykes, Social Science Program.

Project Title: A Pilot Study on Observational Measurement of Behavioral Factors Associated With Increased Employability of Out-of-School Neighborhood Youth Corps Enrollees

Objectives and Procedures: This study is testing the validity of hypotheses developed during a recent study of increasing employability among Neighborhood Youth Corps (NYC) enrollees. The project is also testing the value of observational measurement as a method of studying increased employability. In addition, the usefulness of MIDCARS (Minnesota Interaction Data Coding and Reduction System), a new instrument developed under this project for field observation on interaction between enrollees at their work assignments and others, is also being tested. Underlying this project's hypotheses is an assumption derived from the preliminary study, i.e., that the employability of the NYC enrollee increases as frequencies of employment readiness behaviors and employment-level mobility behaviors increase. "Employment readiness behaviors" are those habits and attitudes which a worker must possess in order to hold even an unskilled job. These include regular attendance, notification when absence is unavoidable, promptness, discrimination of work cues, verbal interaction, effective signs of work interaction, dress and appearance appropriate to the work context, tolerance of deferred gratification, and responsiveness to social as well as material rewards. In order to achieve upward mobility, a worker must also demonstrate additional behaviors, called "employment-level mobility behaviors," including specific skill performance and excellence of performance. All of these behaviors are susceptible to observational measurement.

All out-of-school NYC enrollees assigned to urban projects in Minnesota during the study period are being observed in seven 1-hour periods from the first through the 16th week of their enrollment. Enrollees are also being tested for intelligence, reading ability, and reinforcement needs. Observational techniques are being used to measure work contexts, enrollee work roles, and supervisor-enrollee interaction.

Status of Project: Completion is scheduled for fiscal year 1969.

**1.5.07 UNIVERSITY OF MINNESOTA
MINNEAPOLIS, MINN.**

CONTRACT NO. 41-8-003-25

Principal Staff: R. Frank Falk, Department of Sociology.

Project Title: Education and Job Success in a New Careers Program

Objectives and Procedures: This study will investigate the relationships among several social-psychological variables and background characteristics of enrollees in the Minneapolis New Careers Program, including job and educational performances and satisfaction.

Data will be collected by means of questionnaires and interviews given to all 207 enrollees in the program. Extensive efforts are being made to follow up all dropouts from the program. Variables to be measured with existing standardized tests include work needs of the enrollees, vocational or work abilities, job satisfaction, the acceptability of the enrollees' job performance, the individual's self-conception and self-regard, and educational ability. Measures will be developed for the three major variables for which no tests are available—educational desires, satisfaction, and satisfactoriness.

Status of Project: To be completed in fiscal year 1969.

**1.5.08 NATIONAL ANALYSTS, INC.
PHILADELPHIA, PA.**CONTRACT NO. 41-7-001-37
81-40-66-18

Principal Staff: Dr. Gerald D. Robin.

Project Title: A Study of the Year-Round and Summer Neighborhood Youth Corps Program for In-School Students

Objectives and Procedures: The Neighborhood Youth Corps offers summer-only and year-round programs for in-school youth, 14 through 21 years of age,

who come from low-income families. The summer program consists of 10 to 12 weeks of paid work experience (32 hours per week), administered under professional guidance and supervision. The year-round program provides, in addition to summer work, continuing work experience of up to 15 hours a week during the school term.

To compare the relative effectiveness of the year-round and summer-only programs, samples are being selected of in-school program enrollees in two cities, as well as control groups of youth who met the requirements and who applied but were not enrolled due to lack of NYC positions. Measurements of attitudinal and behavioral changes are being based on periodic interviews with the enrollees and the control group. Interviews with a sample of enrollees' parents are also being conducted. An analysis of school and police records supplements information obtained from the interviews.

Status of Project: The final report is scheduled for fiscal year 1969.

1.5.09 NATIONAL LEAGUE OF CITIES WASHINGTON, D.C.

CONTRACT NO. 41-8-001-9

Principal Staff: Lawrence A. Williams.

Project Title: Expanding Job and Career Opportunities in Municipal Employment for Residents of Deprived Urban Neighborhoods

Objectives and Procedures: This study seeks ways to assist cities in alleviating the simultaneous existence of a shortage of skilled manpower and substantial unemployment or underemployment among ghetto residents. The study will develop basic information on: (1) The extent to which cities can and have developed effective job opportunity programs for residents of deprived urban neighborhoods; (2) the impact of such programs on the performance of municipal services; and (3) ways in which such programs can be implemented most expeditiously and effectively.

Status of Project: Completion is scheduled for fiscal year 1969.

1.5.10 STATE UNIVERSITY OF NEW YORK, BUFFALO BUFFALO, N.Y.

CONTRACT NO. 41-8-005-34

Principal Staff: Dr. John E. Drotning and Dr. David B. Lipsky, Department of Psychology.

Project Title: Jobs, Education, and Training: Research on the JET/On-the-Job Training Project at Buffalo

Objectives and Procedures: The Opportunities Development Corporation (ODC) is a private, nonprofit corporation with combined support from the business community and local civil rights organizations. Its main objective is to initiate a number of on-the-job training programs designed to "achieve maximum utilization of manpower on the Niagara Frontier." The first such project is JET (Jobs, Education, Training).

This research will explore the interaction among those participating in the JET program. Through questionnaires and personal interviews, the researchers will collect data on such questions as supervisor and co-worker attitudes about personal and social preferences, and on-the-job performance of actual or potential JET enrollees. Similar information will also be collected from enrollees.

Status of Project: This study is scheduled for completion during fiscal year 1969.

1.5.11 NEW YORK UNIVERSITY NEW YORK, N.Y.

CONTRACT NO. 41-8-006-34

Principal Staff: Dr. Raymond A. Katzell, Dr. A. K. Korman, and Dr. R. B. Ewen, Department of Psychology.

Project Title: The Supervision of Workers From Different Ethnic Backgrounds

Objectives and Procedures: This project will provide general information on how Negro and white workers differ in their perceptions and evaluations of job and supervisor characteristics and on the implications of such differences for job adjustment and performance.

The study will also suggest methods of supervision which are likely to prove effective with Negro workers.

The following three-stage procedure will be used:

1. A series of open-end interviews will be administered to about 80 white and Negro workers to generate hypotheses on differing perceptions and evaluations.

2. Based on these hypotheses, a questionnaire will be constructed and administered to about 200 white and Negro workers.

3. Through a series of interviews with a total of 1,000 white and Negro workers, the study will relate differences discerned in perceptions and evaluations to various job behaviors of practical importance.

Status of Project: Completion is scheduled for fiscal year 1970.

1.5.12 NORTH STAR RESEARCH AND DEVELOPMENT INSTITUTE MINNEAPOLIS, MINN.

CONTRACT NO. 41-7-006-25

Principal Staff: Dr. Guy H. Miles.

Project Title: Optimizing the Benefits of Neighborhood Youth Corps Projects for Rural Youth

Objectives and Procedures: This two-part project will provide guidelines for maximizing the benefits of Neighborhood Youth Corps projects for rural youth. The objectives of the first part were to: (1) Define the problems confronting rural youth, both those who remain on the farm and those who move to other environments; (2) develop hypotheses regarding the determinants of successful transition to nonrural life; and (3) outline an NYC program that would best meet the needs of farm youth. The second phase of the study is concerned with validation of the hypotheses and development of effective NYC programs for rural youth.

During part one, interviews were conducted with rural and smalltown leaders, NYC sponsors and participants, and non-NYC rural youth in four Midwestern States. Information was also collected from Employment Service officials and personnel managers, city social group and labor union leaders, policemen, and welfare workers in Minneapolis-St. Paul and Des Moines. In-depth interviews are being conducted with selected rural NYC sponsors in order to evaluate each program in terms of its ability to solve problems of farm youth.

Status of Project: The project is scheduled for completion in fiscal year 1969.

1.5.13 THE PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK, PA.

CONTRACT NO. 41-8-004-40

Principal Staff: Dr. Morgan V. Lewis, Institute for Research on Human Resources.

Project Title: Factors Influencing the Retention of Participants in a Concentrated Employment Program

Objectives and Procedures: This project will ascertain what qualities in the individual and what factors in a Concentrated Employment Program (CEP) hinder or block the individual's use of CEP services. A sample of about 250 of those who are rejected or withdraw from a CEP will be studied and compared to a matching sample of persons not rejected or withdrawing. Four main sets of data will be collected: (1) Social and economic characteristics; (2) attitudes toward self and society; (3) attitudes toward experiences in the CEP; and (4) evaluations of the participants by others.

Status of Project: This study is scheduled for completion during fiscal year 1969.

1.5.14 RICE UNIVERSITY HOUSTON, TEX.

CONTRACT NO. 41-7-003-46

Principal Staff: Dr. Edwin S. Harwood.

Project Title: Organizational Problems in Enrolling Hard-Core Youth and in Creating Attitude Changes in the Houston Neighborhood Youth Corps Projects

Objectives and Procedures: This project is examining the impact of NYC operating procedures on enrollees in out-of-school NYC projects in the Houston metropolitan area. (See 1.5.01 for a description of NYC programs.) The study is identifying problems of enrollee recruitment, determining the effectiveness of the NYC program in developing motivation and positive attitudes toward learning among enrollees, and assessing the relationship between NYC wage incentives and enrollee recruitment and morale. In addition, the project is studying the internal organizational

problems of sponsoring agencies and problems affecting the relationship between sponsoring agencies and institutions accepting NYC enrollees.

Three methods of data collection are being employed: (1) Observation of the social interaction and behavior of NYC staff, enrollees, and job supervisors in the five Houston projects, with special emphasis on one in-school and one out-of-school project; (2) informal interviews with staff and enrollees; and (3) use of formal questionnaires with a sample of enrollees from each project to determine whether their work experience has brought about attitude changes. Additional data are being collected from Houston NYC agency files and from other studies on NYC operations.

Status of Project: Completion is scheduled for fiscal year 1969.

1.5.15 STATEN ISLAND MENTAL HEALTH SOCIETY, INC. STATEN ISLAND, N.Y.

CONTRACT NO. 41-7-009-34

Principal Staff: Dr. Clyde E. Sullivan and Dr. Wallace Mandell.

Project Title: Transition Between "Work Experience" and Work

Objectives and Procedures: This study will examine the effect of Neighborhood Youth Corps (NYC) work experience on the enrollees. It focuses specifically on changes in the congruity between the job-related perceptions and performance of NYC enrollees, their work-experience supervisors, and their employers.

The study will compare four groups of subjects, all of whom will be connected with nine out-of-school NYC projects in New York City. The groups will consist of: (1) Male enrollees with little NYC work experience; (2) male enrollees after substantial NYC work experience; (3) project personnel; and (4) employers in the competitive job market who hired or interviewed enrollees after their NYC experience.

Structured interviews will elicit information on the enrollees' knowledge of normative work role behavior,

the NYC work experience, supervisors' normative work role perceptions, and the normative work role requirements of employers.

Status of Project: Completion is scheduled for fiscal year 1969.

1.5.16 WESTERN RESERVE UNIVERSITY CLEVELAND, OHIO

CONTRACT NO. 41-7-002-37

Principal Staff: Dr. Frank Friedlander, Dr. Herman Medow, and Dr. Marvin Rosenberg.

Project Title: A Study of Impact and Effectiveness of the Comprehensive Manpower Project of Cleveland (AIM-JOBS)

Objectives and Procedures: This project is studying several important aspects of the Cleveland Concentrated Employment Program (CEP), which began operation in June 1967. The research project intends to: (1) Examine the effectiveness of the project in increasing job opportunities for the disadvantaged; (2) study AIM-JOBS' impact on participating enrollees and participating companies; and (3) study the effectiveness of the project's staff activities. In assessing the value of the project, special attention is being given to its methods for helping the younger enrollees.

Information is being obtained on the relative changes in self-concepts, motivation, occupational status, and psychological behavior of enrollees participating in the project. Information is also being collected on the attitudes of employers and coworkers toward hiring and working with the enrollees, and on the functions and activities of project staff members. Questionnaires, interviews, and observations of the researchers are the primary sources of data. Comparisons are also being made with groups of unemployed and underemployed persons outside the CEP program. Research information resulting from this study will be used to improve the techniques and operations of other CEP projects, as well as NYC projects and New Careers projects.

Status of Project: A final report is due in fiscal year 1969.

2. PROJECTS COMPLETED, JULY 1, 1967-JUNE 30, 1968

This section summarizes the major findings of research projects completed during fiscal year 1968. Information about how to obtain project reports is given in section 3.

2.1 PROJECTS COMPLETED, JULY 1, 1967-JUNE 30, 1968—Research Contracts Under the MDTA

2.1.01 BEHAVIOR RESEARCH INSTITUTE DETROIT, MICH.

CONTRACT NO. 81-24-68-03

Principal Staff: Sheldon J. Lachman and Benjamin D. Singer.

Report Title: The Detroit Riot of July 1967—A Psychological, Social, and Economic Profile of 500 Arrestees

Abstract: This study was designed to investigate some of the psychological, social, and economic characteristics of Negro men who were arrested because of alleged participation in the July 1967 riot in Detroit. About 500 arrestees were interviewed and asked to provide information on demographic characteristics, economic status, use of communication media, and attitudes toward Negro leadership and civil rights.

According to the study tabulations:

1. Two-thirds of the respondents were under 30 years of age.
2. Slightly over one-third had completed high school and three-fourths were employed.
3. Nearly one-half of the respondents were earning between \$101 and \$150 per week; more than one-third were earning between \$51 and \$100 a week.
4. Three out of four respondents had lived in Detroit for 11 years or more.
5. Martin Luther King was the favorite Negro leader of more than one-third of the arrestees. Somewhat less than 10 percent of the respondents named Stokely Carmichael as their favorite.
6. Personal observation and contact were much more important sources of information about the riot than either the radio or television.
7. Police action was the most frequently mentioned cause of the disturbance. Second was general tension and frustration and, third, the broad issue of civil rights and economics.

To meet the need for early information in this area, the Department of Labor used data from this project in its report, *The Detroit Riot . . . A Profile of 500 Prisoners*, published in March 1968.

2.1.02 CAMBRIDGE CENTER FOR SOCIAL STUDIES CAMBRIDGE, MASS.

CONTRACT NO. 81-23-66-03

Principal Staff: Rev. Joseph M. Becker, S.J.

Report Title: Supplemental Unemployment Benefits

Abstract: This exploratory study investigated a form of income maintenance used in the private sector to aid workers during layoff periods. The study examined: (1) The circumstances under which various Supplemental Unemployment Benefit (SUB) plans came into existence; (2) the chief modifications made in SUB provisions on the basis of operating experience; and (3) the actual experience of employers and workers under the plans, in terms of monetary and nonmonetary effects, as compared with the stated objectives of the plans. Information was collected through informal discussions and unstructured interviews with employers and labor union representatives.

The author's observations and opinions based on his research include the following:

1. "The effect of Supplemental Unemployment Benefits on the allocation of labor is not large on either the demand or the supply side. On the side of demand, having supplemental unemployment benefits makes unemployment more costly for the employer, and hence tends to diminish the size of the company's underutilized labor pool. On the side of supply, having supplemental unemployment benefits has had the opposite effect."

2. As of 1965, the total benefits paid (unemployment insurance plus supplemental unemployment benefits) ranged from about 72 percent to 84 percent of take-home pay for the core plans analyzed.

3. To the extent that supplemental unemployment benefits could cause workers to prefer layoff when they might have chosen another job, supplemental unemployment benefits could increase the cost of unemployment insurance. To the extent that they could weaken a worker's incentive to become reemployed sooner, supplemental unemployment benefits could result in high costs for unemployment insurance. The researcher concluded, "... In all probability supplemental unemployment benefits have so increased unemployment insurance cost, but only to a very small extent."

4. Supplemental unemployment benefits defuse employee resistance to technological change and help keep a labor force intact during temporary layoffs. Older workers are protected by seniority.

5. "Since the combined unemployment benefits of unemployment insurance and SUB may equal the wages paid in other available jobs, they may have the effect of delaying needed adjustments in the labor force."

6. "In their operations, the core SUB plans must be judged as having been generally successful in achiev-

ing their principal objectives. A great majority of covered workers have had the necessary seniority and have been eligible for benefits. On the average, SUB has supplemented the unemployment insurance (UI) amount by at least 50 percent, and very few SUB claimants have exhausted their benefits."

7. On the relationship between publicized private spheres of income maintenance, the study states:

"Has a decade of experience under SUB thrown any light on the feasibility of liberalizing UI benefits to the point where they equal those paid by SUB plans? To liberalize UI to that extent would greatly increase, and possibly double, UI taxes. It would also increase the number of improper payments in UI and probably lessen somewhat the mobility of labor. For all of these reasons, there is little immediate likelihood that UI will be liberalized to that extent. Nevertheless, the example of SUB has not been without its influence on UI. The knowledge that those higher benefits have been available to large numbers of workers for over a decade inevitably prepares the mind to accept UI benefits at least somewhat higher than have been paid traditionally. This influence of SUB on UI is likely to grow as the liberalization of SUB continues and as its successful experience becomes more widely known."

The study is being published by the Johns Hopkins University Press.

**2.1.03 BUREAU OF THE CENSUS
U.S. DEPARTMENT OF COMMERCE
WASHINGTON, D.C.**

CONTRACT NO. 81-09-66-10

Principal Staff: David P. McNelis.

Report Title: Characteristics of Local Government Employees—A Pretest Survey

Abstract: This two-part study tested the feasibility of developing new occupational information on the characteristics of nonteaching personnel employed in State and local governments. Initially, a personal canvass was made of a sample of approximately 70 local governments of differing sizes to obtain information on employees, identified by agency of employment. This information served as a basis for classification by government function. A mail questionnaire was then sent to the individual employees to obtain data on age, sex, education, duration of public employment, extent of training, and related information.

The high response rate achieved indicated the feasibility of conducting a large-scale nationwide survey to provide detailed data on the 4 million nonteaching persons who are full-time employees of State and local governments. Plans for a large-scale survey are now being developed (see 1.1.11).

**2.1.04 THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, D.C.**

CONTRACT NO. 81-09-66-19

Principal Staff: Dr. Regis H. Walther.

Report Title: A Retrospective Study of the Effectiveness of Out-of-School Neighborhood Youth Corps Programs in Four Urban Sites

Abstract: This study was a retrospective evaluation of the effectiveness of selected out-of-school programs in four cities (Cincinnati, Ohio; Durham, N.C.; East St. Louis, Ill.; and St. Louis, Mo.) in terms of helping youth find employment. The evaluation focused on the effectiveness of selected program elements—remedial education and combined education.

Approximately 25 percent of the experimental subjects were young people whose families were dependent upon welfare assistance. Less than one-third of the subjects had both parents living at home. The average enrollee had not completed the 10th grade, and had been out of school for over 17 months at the time of registration. Approximately one-third of the female subjects left school because of pregnancy, and about 40 percent of the males had police records. In Cincinnati, where school records were studied, the average I.Q. score was a little over 90, and academic performance was poor.

According to the study, NYC programs in the four cities seemed to have their most significant impact on young Negro women. The programs appeared less effective with all males and white females.

The data from this study provided substantial evidence that the out-of-school NYC programs at the four research sites have enrolled seriously disadvantaged youth, particularly among males. Furthermore, the programs are improving the work and community adjustment of participating youth.

Further research on the same NYC programs is being conducted under a Manpower Administration contract (see 1.5.04).

**2.1.05 INTERNATIONAL LABOUR OFFICE
GENEVA, SWITZERLAND**

CONTRACT NO. OAM 5-63(D)

Principal Staff: Sven Grabe.*Report Title:* Training of Maintenance Workers

Abstract: This study examined problems encountered by industrial firms in four countries (France, the Federal Republic of Germany, Belgium, and Sweden) in the recruitment and further training of apprentices and young journeymen and in the updating of skills and knowledge of maintenance workers. Emphasis was placed on the chemical and food processing industries, both of which had been undergoing rapid technological development. Information was collected through a questionnaire and personal interviews.

Contrary to expectations, findings indicated that the firms had not found it difficult to recruit sufficient maintenance workers or to retrain existing staff to meet the new skill requirements. Training and updating of staff tended to be given by special short-term courses organized by the company, employers' organizations, technical schools, or suppliers of the new equipment. However, the researcher warned that problems of recruiting and training maintenance men must be assessed specifically for each country and for each major branch of industry.

**2.1.06 INTERNATIONAL LABOUR OFFICE
GENEVA, SWITZERLAND**

CONTRACT NO. OAM 5-63(G)

Principal Staff: N. Franklin.*Report Title:* International Comparison of Procedures for Dealing With Redundancy in Selected European Countries

Abstract: This study analyzed the economic characteristics of industries in selected European countries in which employment has been decreasing. The researcher surveyed measures to cope with surplus labor to assess the relative importance of individual measures and the comparative efficiency of national policies. The study considers: (1) Measures to avoid the occurrence of redundancy or of unemployment resulting from it; (2) measures to reduce hardship to redundant

workers; and (3) measures to absorb hardship to redundant workers. The term "redundancy" refers to a worker whose employer is unable or unwilling to continue to employ him in his present job for reasons related to the economic conditions confronting the enterprise.

The report consists of a descriptive review of the types of measures that are being used by companies in coal mining, shipbuilding, automobile, textile, and railway industries in Western Europe, the Common Market, and the European Coal and Steel Community. These measures include the required period for notice of separation, use of government subsidies, retraining opportunities, relocation problems, early pensions, dismissal grants, and wage stabilization funds. A final chapter analyzes the costs and effectiveness of the various measures studied.

**2.1.07 BUREAU OF LABOR STATISTICS
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.**

CONTRACT NO. MDTA 23-64

Principal Staff: Harry J. Greenspan.*Report Title:* Estimates of Employment Requirements by Occupation for 1975

Abstract: Projections were developed for occupational patterns in 1975 in approximately 125 industries. These, together with projections of employment by industry, were used to develop estimates of employment requirements for about 100 occupations which require specialized training or extensive education.

Data from the 1960 census and other sources, and from studies of technological change and other factors likely to modify past trends, were used to prepare detailed 1975 occupational patterns for industries. These occupational patterns are suitable for application to industry employment estimates now being prepared in connection with the Economic Growth Project of the Bureau of Labor Statistics.

The study indicated that approximately 89 million persons are expected to be at work in 1975. The indicated rate of employment growth, since 1965, is about 50 percent above the rate of the 1950-65 period. A net increase in employment of 16.5 million is projected between 1965 and 1975, compared to an increase of 9.2 million experienced between 1955 and 1965.

White-collar employment is expected to increase to 48 percent of total employment by 1975. Blue-collar employment will increase, but the share for this group will fall to about one-third of total employment. The service group is expected to employ more than 4 million additional workers. This employment increase of about 50 percent will again raise the proportionate employment for this group, which has shown long-term relative growth. Employment of farmers and farm laborers is expected to continue to decline—by more than 35 percent in the 15-year period after 1960, as a result of technological improvements and other factors.

The Department of Labor is considering publication of this study.

2.1.08 BUREAU OF LABOR STATISTICS
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.

CONTRACT NO. 81-09-66-07

Principal Staff: Carl Rosenfeld.

Report Title: A Survey of Volunteer Work, November 1965

Abstract: The study was designed to test the feasibility of obtaining national data on the numbers and types of persons doing unpaid volunteer work, and on the amounts of time contributed by unpaid volunteer workers in such activities.

The required information was collected through individual questionnaires filled out by members of approximately 4,000 households as a supplement to the November 1965 Current Population Survey. Survey findings include the following:

1. About 6.7 million persons, or 5 percent of the civilian noninstitutional population 14 years old and over, contributed some time to unpaid volunteer work during the survey week in November 1965 to meet the social welfare needs of their communities. Of these, about 1 million also spent some time in unpaid work connected with their church. An additional 2.7 million did only religious volunteer work. Altogether, 9.4 million persons were involved.

2. Greater proportions of women than men did volunteer work, both religious and other—8.2 and 5.7 percent, respectively. Among persons who did nonreligious volunteer work:

a. The average volunteer worker devoted 5.6 hours per week. The average hours were virtually the same for men and women, but were somewhat

longer for older persons (45 years or over) than for younger volunteers.

b. The volunteer worker was more likely to be a white-collar than a manual worker, and someone who had attended college.

c. There was a sharp difference between men and women in the type of activity in which they were involved. Large proportions of men were in scouting and other youth activities, and in civic or community programs. Women tended to concentrate in educational or social and welfare service.

d. About one-fourth of the volunteers said they were organizers or planners; one-fifth indicated they were fund raisers.

3. During the 12-month period ending in November 1965:¹

a. Some 21.7 million persons did volunteer work at one time or another, about three times as many as during the survey week.

b. One-third of the 21.7 million persons who did volunteer work during the year did so frequently and regularly—nearly every week or every 2 weeks.

c. Half the volunteers spent less than 25 hours doing volunteer work during the year, but about 1 in 5 worked 100 hours or more.

The Manpower Administration is preparing a monograph based on this survey. This monograph will analyze the implications of volunteer work with regard to the Nation's needs in this area, and suggest methods to stimulate greater amounts of volunteer effort.

2.1.09 BUREAU OF LABOR STATISTICS
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C.

CONTRACT NO. 81-09-66-15

Principal Staff: William Gerber.

Report Title: Labor Standards and Job Training in Foreign Countries

Abstract: For this project, an in-depth study was made of how 16 foreign countries handle government-established standards and those agreed to through collective bargaining for bona fide on-the-job trainees. The researcher also examined the economic aspects, adminis-

¹ The figures include some data on religious work performed during the year, but exclude data for the 2.7 million persons who did only religious volunteer work during the survey week.

trative practices, and social structure of areas where wage and hour standards are applied to training programs. Information was obtained through a questionnaire sent to labor attachés and labor reporting officers at selected U.S. overseas posts, and from secondary sources.

According to the findings, existing statutory and contractual labor standards regulations harmonize, on balance, with policies and practices designed to encourage private industrial training. This harmony between employer-provided training and prescribed trainee wages, hours, and other conditions of employment is attributed to the following principal factors:

1. The various educational and vocational systems are structured to promote the participation of young persons in vocational training.
2. The compulsory nature of some training legislation and/or the decentralized administration of the training programs provides a vehicle for advance solutions to possible problems of incompatibility between labor standards and training.
3. The net effect of recruitment of trainees at an early age appears to be weighted in favor of agreement between training and labor standards.
4. The financing arrangements for training are, in general, a stimulus to vocational and apprenticeship training.
5. Trainee wages themselves are scaled to induce employers to provide training, and though minimal problems have arisen, they have either been dealt with or have been an insufficient cause of serious concern.
6. Hours of trainees, and particularly the restricted use of trainee overtime work, seem to reconcile the interests of both employers and trainees.
7. The nature of adult training programs coincides with economic realities and social needs and has led to the general acceptance of the way in which they are administered.

The findings of this study were reported in an article in the September 1967 *Monthly Labor Review*.

2.1.10 THE LAFAYETTE CLINIC DETROIT, MICH.

CONTRACT NO. 81-24-66-14

Principal Staff: Dr. Albert F. Ax.

Report Title: Validation of a Physiological Test of Aptitude for Learning Social Motives

Abstract: This study was based on two assumptions: (1) That an individual learns a hierarchy of motives, that is, largely unconscious systems enabling the selection of alternative behavior, especially the postponement of immediate gratification in deference to long-term goals; and (2) that this learning of the hierarchy of motives requires aptitudes which are widely distributed in the population. The study tests the following hypotheses: (1) That individuals who fail to achieve when sufficient opportunity is available and who do not suffer serious impairment are likely to be deficient in the aptitudes essential for learning motivation; and (2) that these aptitudes can be measured by a discriminative learning task which requires a differential autonomic response.

Sixty-three Negro subjects were classified into two higher and lower motivation groups based on interview data and the ratings of vocational retraining school teachers. The subjects were given psychological tests, interspersed with exposure to experimental physiological manipulations.

Study findings indicated the test results, in combination, classified 90.5 percent of the subjects into their correct criterion groups (higher or lower motivation). The investigators concluded that both working hypotheses were strongly confirmed and that the two fundamental assumptions were supported.

Implications of these findings, if confirmed by replication, include the following: (1) That a fundamental set of human aptitudes for learning motives exists and can be measured; (2) that the existing measures of the construct enable further exploration of its relationship to other aptitudes and characteristics; and (3) that knowledge of these relationships will make it possible to devise more practicable training procedures for developing socially desirable motives, for selecting and placing personnel more appropriately, and for predicting more accurately human performance involving motivation.

2.1.11 UNIVERSITY OF MISSOURI COLUMBIA, MO.

CONTRACT NO. 81-24-25

Principal Staff: Dr. H. H. London, College of Education.

Report Title: How Fare MDTA Ex-Trainees? An Eighteen Months' Followup Study of Five Hundred Such Persons

Abstract: This study examines pretraining and post-training experiences of 518 people who completed MDTA institutional training in St. Louis, Kansas City, or Joplin, Mo., between October 1964 and September 1965. Trainees and their employers were interviewed 6, 12, and 18 months after completion of training. Since this training occurred before MDTA programs were directed more specifically toward reaching the disadvantaged, the researcher warned that the results reported probably have limited applicability.

The researcher found that employees' posttraining wages were higher than those received prior to training. A majority of the ex-trainees reported that they were better able to support themselves and their dependents after training. According to the study, most of those who were drawing welfare benefits both before and after training were women with dependent children. Many of these women reported that they would be employed if day care facilities were available.

At the 18-month followup, approximately 15 percent of the ex-trainees were employed in the occupation for which they had received MDTA training, 20 percent were in a related occupation, 32 percent were in an unrelated job, and the rest were unemployed or were not seeking work. Forty-three percent of those who were working in an unrelated occupation said there was no work available in the field for which they were trained.

Higher proportions of persons trained as practical nurses, draftsmen, welders, machine pressers, alterations tailors, and cooks were employed in training-related occupations than were those trained as clerks, electronic mechanics, building maintenance men, auto body repairman, sheetmetal workers, and machine operators.

Ex-trainees rated the practical skills developed, and then the technical information acquired and pay received, as the most helpful aspects of their training. Many who suggested areas for program improvement felt that more specialized training was needed. The few comments from employers indicated a need for more guidance, attitude development, and job entry preparation. According to employers, employee attitude was found to be perhaps the most critical single factor in job success.

The researcher recommended the provision of comprehensive supportive services, including day care facilities, improved matching of trainee interests and assets with occupations actually in demand locally, and improved interagency coordination. He also called for improved guidance, placement, and job followup services from community institutions.

2.1.12 NATIONAL MANPOWER POLICY TASK FORCE WASHINGTON, D.C.

CONTRACT NO. 83-09-68-02

Principal Staff: Dr. Garth L. Mangum and Arnold Nemore.

Report Title: Report of Conference of New Manpower Researchers

Abstract: The National Manpower Policy Task Force arranged and conducted a conference in September 1967 in Washington, D.C., of 49 researchers working under MDTA doctoral dissertation grants. Senior manpower researchers gave presentations and chaired the workshop sessions in which selected doctoral candidates reported on and discussed their dissertation research with other workshop participants.

The exposure of their work to their peers and to established experts, and the interchange with other professionals in the field, have helped to cement the new researchers' interests in manpower problems and have increased the chances of their continuing in this area after completion of their Ph.D.'s.

A final report summarizing and evaluating the results of the conference was submitted in November 1967. Based on results of the first conference, similar conferences are planned for succeeding years.

2.1.13 NATIONAL OPINION RESEARCH CENTER CHICAGO, ILL.

CONTRACT NO. MDTA 22-64²

Principal Staff: Rev. Joseph H. Fichter, S.J.

Report Title: Graduates of Predominantly Negro Colleges—Class of 1964

Abstract: This project sought to determine the employment aspirations, career decisions, and plans for graduate study of a group of 1964 graduates of pre-

² This study was initiated at the suggestion of the U.S. Department of Labor with cosponsorship by the National Institutes of Health of the U.S. Department of Health, Education, and Welfare, and the National Science Foundation. It was conducted by NORC under contract with NIH.

dominantly Negro colleges. The study was based on mail questionnaire surveys of three student populations: (1) A sample of graduates of the 1964 class of 50 predominantly Negro colleges; (2) a sample of graduates of predominantly white colleges; and (3) all others. The comparison groups were derived from a companion national study of the 1964 senior class.

The findings document the specific barriers that the Negro feels he must surmount to reach and complete college. Low family income, poorly educated parents, and broken homes were among the early obstacles. Compounding these difficulties were segregated and unequal schooling, low academic standards, and an inadequate precollege curriculum.

Poverty was also found to be a principal deterrent to graduate education and professional training: financial disability delayed the students' entrance to college, interrupted their college careers, and prevented continuation in graduate school.

The majority of both Negro and white women students planned to enter teaching. Negro men students expected their most likely employment to be as teachers at the elementary and secondary school levels, whereas most white men students expected to work in business and industry.

Negroes felt there was discrimination against them in the world of business, with no opportunity for advancement to executive and administrative positions. However, except in the South, the Negro students were optimistic in expecting future improvements in all occupational categories.

2.1.14 NATIONAL PLANNING ASSOCIATION WASHINGTON, D.C.

CONTRACT NO. 81-08-20

Principal Staff: Dr. Leonard A. Lecht.

Report Title: Manpower Requirements for National Objectives in the 1970's

Abstract: This study examined manpower requirements to achieve an illustrative set of 16 national goals. The study was designed to provide a framework for the individual decisions by consumers, business firms, trade unions, and legislators through which a democratic society assigns priorities to its different goals. The standards for the goals were developed from legislative hearings, legislation, reports of study commissions, and similar materials, and cover virtually all

sectors of the private and public economy. Input-output analysis was used to estimate the money and the manpower needed to achieve the goals by 1975.

The 1975 cost of achieving the goals was estimated, in an earlier National Planning Association study, at \$1.16 trillion in 1964 prices—or almost \$150 billion more than the probable gross national product of a virtually full employment economy with an average annual growth rate of 4.5 percent. Similarly, the present study calls for civilian employment of more than 100 million, or about 10 million above the expected number.

So long as the United States vigorously pursues goals like these, it is likely to have too little rather than too much manpower. The Nation's manpower problems are likely to involve upgrading education and job training, utilizing manpower potentials more fully, and improving mobility, the study concluded.

The Nation's choice of priorities would significantly influence employment opportunities in different occupations. For example, concentration on housing would increase job openings primarily for blue-collar workers, especially construction craftsmen and laborers and factory operatives producing building materials and housing equipment. A high priority for health and education goals, on the other hand, would emphasize college-trained workers (doctors, teachers, librarians, etc.), although it would also create jobs for service workers (hospital attendants, teacher aides, etc.).

The study also suggests that substantial progress toward the goals would create more and better job openings for groups now either unutilized or underutilized. Thus, achieving the urban development goal could generate employment for more than 1 million nonwhites (of 10 million who would be employed in activities directly or indirectly related to the goal). However, efforts to eliminate racial discrimination would be a precondition of realizing the projected employment of nonwhites.

The author of the study sees a need for advance planning to build up the supply of manpower required for major objectives without creating bottlenecks elsewhere. Moreover, by making it possible to estimate the manpower effects of contemplated programs of all kinds, the study permits manpower policy to become an explicit consideration in decisions on those programs.

Departmental officials, congressional staff, and other interested persons have been briefed on the findings and their use, and the report has been widely distributed. An MDTA contract has been awarded to the National Planning Association for a "spinoff" study of the money and manpower required for a major

effort to cope with poverty, since antipoverty measures were an implicit, rather than an explicit, goal in the present study (see 1.1.43).

Frederick Praeger is to publish a book based on the study in late 1968.

2.1.15 OKLAHOMA STATE UNIVERSITY OF AGRICULTURAL AND APPLIED SCIENCE, RESEARCH FOUNDATION
STILLWATER, OKLA.

CONTRACT NO. 81-38-66-20

Principal Staff: Dr. Robert L. Sandmeyer and Dr. Larkin B. Warner.

Project Title: The Determinants of Labor Force Participation Rates, With Special Reference to the Ozark Low-Income Area

Abstract: This exploratory study was concerned with various factors associated with labor force participation rates in a rural low-income area. The study utilized, in part, data from the Current Population Survey of the Bureau of the Census, and intended to use the information developed from this initial work as the basis for a proposed field survey to evaluate existing manpower policies as they apply to rural low-income areas, and to recommend programs aimed at alleviating general underutilization of human resources in such areas.

The project was modified to omit the field survey. However, findings from the exploratory phase of this study revealed that declining employment opportunities in the farming sector have not been adequately offset by expanding demand in industries which traditionally employ large numbers of men. On the other hand, the entry of an increasing proportion of women into the nonfarm labor force has created wage patterns which have attracted business firms that can rely on a relatively unskilled and low-paid female work force. The combination of these male and female employment patterns has resulted in a depressed wage level and a large population group—both working and nonworking—below the poverty line.

2.1.16 THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PA.

CONTRACT NO. 81-40-67-21

Principal Staff: Dr. Jacob J. Kaufman and Dr. Louis Levine, Institute for Research on Human Resources.

Report Title: Pilot University Research Consultation Conference

Abstract: This project was designed to test whether university leadership and conduct of a research conference effectively facilitates an interchange of information between Government and the research community on manpower issues and changing research emphases. In the study, a pilot conference was arranged by Pennsylvania State University and conducted at the University of Illinois in May 1967.

The conference was designed specifically to inform selected university faculty actively engaged in teaching and research in the manpower-related disciplines about recent Federal legislation, policy, and program developments in the manpower area. Prospective research problems were identified, and a highly effective forum was provided for the exchange of ideas on how the academic community might best contribute to the advancement of national manpower goals.

Recommended areas for further research included the following:

1. The processes of job advancement and occupational mobility which would further help workers move up skill ladders and move to new careers, and help the disadvantaged enter the job market.
2. Job aspirations of Negro youngsters, which would reveal if they are realistic with respect to existing opportunities and their own potentials.
3. The effects of collective bargaining agreements upon employment conditions.
4. New ways of increasing the supply of health manpower.
5. Potential economic and manpower effects of a Vietnam peace so that appropriate manpower policies and programs might be developed to facilitate the economy's readjustment.

2.1.17 PLANNING RESEARCH CORP.
WASHINGTON, D.C.CONTRACT NO. 81-05-68-07³

Principal Staff: Dr. Norman H. Jones, Dr. Ray Waltman, Dr. Robert Riggs, and James Reagan.

Report Title: Model Employment Component of a Model Neighborhood Under the Demonstration Cities Act of 1966

Abstract: In this project, a manpower planning component has been developed for the general employment, training, and job-related activities of a Model Neighborhood plan under the Demonstration Cities Act of 1966. The plan was developed using data specifically for the city of Philadelphia, but it was designed to serve as an example and guide for other cities preparing a manpower planning component of a Model Neighborhood plan. By using an actual model neighborhood and "live data," the study has simulated some of the problems which may be encountered by other cities in developing a plan, and it suggests various techniques and data sources which may be of assistance in other situations.

The plan as developed consists of four sections:

1. An analysis of the existing situation in the Model Neighborhood, including information on employment, education, existing problems, and available resources.
2. The 5-year plan for the Model Neighborhood with strategies and goals.
3. The first-year plan for the Model Neighborhood with strategies and goals.
4. A review of the planning process with recommendations for improved utilization of resources.

Throughout the plan, the contractor has interposed comments based on his experience and suggestions for possible improvement in the planning process. He has recommended strengthening some of the existing programs and has suggested several innovative approaches based on his findings.

³ This contract was funded jointly by the Department of Labor and the Department of Housing and Urban Development.

2.1.18 TEMPLE UNIVERSITY
PHILADELPHIA, PA.

CONTRACT NO. 81-37-03

Principal Staff: Herman Niebuhr, Jr., Center for Community Studies.

Report Title: The Dialect Remediation Project: Final Report.

Abstract: In conjunction with a demonstration project, data were collected on the progress of 160 young Negro women enrolled in a training program designed to prepare them for occupations requiring communication skills. All of the women attended remedial English classes, and, in addition, half of the group received programmed remediation lessons associated with language problems related to dialect and other special assistance.

Study findings indicated that the women receiving the special treatment achieved significant improvements in speech through this method. However, administrative difficulties precluded drawing valid conclusions concerning positive changes in self-image and occupational attainment. Trainee counseling was reported to be a valuable adjunct in encouraging maintenance of effort by the trainees and improving job readiness.

2.1.19 THE UNIVERSITY OF TEXAS
AUSTIN, TEX.CONTRACT NO. 81-09-67-26⁴

Principal Staff: Daniel O. Price.

Report Title: Summary Report of Conference on Changing Occupational Patterns of Negroes

Abstract: In August 1967, the University of Texas conducted a conference on research concerning the changing occupational patterns of Negroes. The conference consisted of presentations by a limited and highly select number of representatives of government and the academic community.

⁴ The U.S. Department of Labor and the Office of Economic Opportunity cosponsored this project.

Highlights from the report of conference proceedings include:

1. The quality of data available for research in this general area leaves much to be desired. Although researchers must look for long-term patterns, it is possible that consistent biases in the data can produce spurious patterns.

2. Based on the Current Population Survey, the number of persons not available for work in recent years has apparently been rising. In addition to a need for more information about the characteristics of these people, additional cross tabulations (by race, sex, age, geographic location, etc.) are needed.

3. There is probably no way to isolate the effects of migration and a fluctuating economic system upon the changing occupational patterns of Negroes by States.

4. Several questions discerned for further research were:

a. What would it take to achieve occupational "equality" in the younger generation of nonwhites by 1985?

b. What is the most effective way of planning for special training between high school and college and between college and graduate school for Negroes from poor schools?

c. What are the effects of channels of entry into the labor force on white-nonwhite differences in occupational patterns?

d. Would studies of occupational turnover reveal different patterns of occupational mobility for whites and for nonwhites?

2.1.20 THE W. E. UPJOHN INSTITUTE FOR EMPLOYMENT RESEARCH WASHINGTON, D.C.

CONTRACT NO. 81-09-67-13 ⁵

Principal Staff: Orley Ashenfelter and Dr. Harold L. Sheppard.

Report Title: Minority Employment Patterns, 1966

Abstract: A comprehensive analysis was made of minority group employment data collected in a 1966 survey of 120,000 employers covered under title VII of the Civil Rights Act of 1964. The analysis sought

⁵ This study, cosponsored by the Manpower Administration, was conducted under contract with the Equal Employment Opportunity Commission.

to: (1) Evaluate the data for policy implications and recommend priorities for implementing compliance and technical assistance programs conducted under the Civil Rights Act; (2) compare minority group employment experience among industries, geographic areas, and occupational levels, by sex, by specific minority groups, and in relation to the total work force; and (3) improve the annual survey questionnaire instrument and methodology for future data collection.

The study pinpoints discrimination for Negroes, Anglos, Mexican Americans, Orientals, and American Indians. In establishing criteria for identifying discrimination, major consideration was given to the educational level of the workers involved.

Using an index technique, the study showed the variation in the employment of Negroes as compared with other racial groups by industry, occupation, and region, and in standard metropolitan statistical areas located in the different regions. In the industries covered by the data, occupational discrimination appeared to rise in direct relationship to the concentration of Negroes in the industry, the percentage of well-paid occupations in the industry, the level of education of the Negroes involved, and the proportion of the industry's employment located in the southern region.

2.1.21 UNIVERSITY OF WISCONSIN MADISON, WIS.

CONTRACT NO. 81-53-67-03

Principal Staff: Dr. Gerald G. Somers, The Center for Studies in Vocational and Technical Education.

Report Title: Research in Apprenticeship Training; Essays on Apprenticeship

Abstract: Over 100 specialists in the field of apprenticeship training, men representing the academic community, private foundations, and government agencies, participated in a conference at the University of Wisconsin. The conference aimed to stimulate research into problems of contemporary apprenticeship training and to encourage broader dissemination of pertinent research findings. Position papers were presented on: Apprenticeship training and the demands of the job market; identification of forces which have controlled the supply of and demand for apprentice-trained labor; the nature, content, and duration of related instruction

programs; the role of joint apprenticeship advisory committees; preapprenticeship training; and the experience of minority groups in apprenticeship programs.

The report, *Essays on Apprenticeship*, presented a series of papers describing recent research in this general area primarily by the conference participants, and clarified and expanded many substantive questions discussed in the conference papers.

2.1.22 UNIVERSITY OF WISCONSIN MADISON, WIS.

CONTRACT NO. 81-53-67-12

Principal Staff: Dr. Gerald G. Somers and Dr. J. Kenneth Little, The Center for Studies in Vocational and Technical Education.

Report Title: The Education and Training of Racial Minorities: Proceedings of a Conference

Abstract: A research-oriented conference, held at the University of Wisconsin in May 1967, brought together

researchers from the academic community, private foundations, and government agencies concerned with the general problem of improving the employability of and employment opportunities for minority group workers. The purpose of the conference was to report on the results of recent research on the education and training of racial minorities and to highlight areas needing further study.

The conference program covered educational, training, and employment problems of minorities, particularly Negroes and Mexican Americans. Conference participants generally stressed the need for action programs in education, training, and upgrading of minority workers. Support was developed for the thesis that, for Mexican Americans, low educational levels and lack of acculturation rather than discrimination were the prime barriers to achievement of equal participation in the industrial economy.

Papers related primarily to the Negro problem ranged in subject matter from a strategy for self-development for middle-income Negroes to an examination of the training potential of the South's unused manpower.

2.2 PROJECTS COMPLETED, JULY 1, 1967-JUNE 30, 1968—Doctoral Dissertation Grants Under the MDTA

2.2.01 ARIZONA STATE UNIVERSITY TEMPE, ARIZ.

GRANT NO. 91-03-68-40

Doctoral Candidate: James Leslie Hodge, Department of Office Administration and Business Education.

Sponsor: Dr. Donald J. Tate.

Dissertation: Cooperative Office Education and Its Effect on Attitudes Toward Office Employment

Abstract: This study considered whether the attitudes of female students toward office employment were affected by enrollment in cooperative office education programs. Two random samples of 100 subjects each were drawn from the girls attending 10 Milwaukee public schools during the first semester of the 1967-68 school year. One sample consisted of students enrolled in cooperative office education classes, a program open to 12th graders, involving part-time employment with cooperating employers, and offering related classroom instruction. The other sample consisted of girls enrolled in programs also designed to prepare students for entry-level office employment, but offering traditional instruction without on-the-job training. Both samples were tested with the Stuart Attitudes Toward Office Employment Scale at both the beginning and end of a semester of training.

The researcher found no significant difference in the attitudes of the two groups in either round of testing. Both groups demonstrated generally favorable attitudes toward office employment.

2.2.02 COLUMBIA UNIVERSITY NEW YORK, N.Y.

GRANT NO. 91-34-66-58
91-34-67-27

Doctoral Candidate: Hirsch Samuel Ruchlin, Department of Economics.

Sponsor: Dr. Aaron W. Warner.

Dissertation: Manpower Resources of the U.S. Maritime Industry: A Definitional and Descriptive Analysis of the Maritime Labor Force

Abstract: To assess the manpower resources of the U.S.-flag merchant marine and to develop information for manpower planning, data on the maritime work force were collected largely for the period 1962-64. These data were drawn from: (1) Statistics generated by the National Academy of Science-National Research Council from U.S. Coast Guard documents; (2) the Maritime Administration, U.S. Department of Commerce; and (3) maritime unions.

According to the researcher, the surplus of maritime manpower which has developed since World War II is reflected in the following: (1) The gradually increasing number of men in relation to jobs; (2) the high incidence of employment below a seaman's highest qualification level; (3) a persistently high turnover rate for newer entrants, many of whom are underemployed; (4) the rationing of available jobs by the trade unions according to seniority; and (5) existing impediments to entry into the maritime industry and to upward mobility within the industry.

The surplus of manpower is perpetuated by institutional arrangements which impede movement out of the industry:

1. The trade unions control hiring, and choose to maintain surplus manpower on their roles.
2. Pension programs are vested in the unions, so that an individual loses his contributions if he leaves the industry before retirement.
3. No retraining programs are available.

Since World War II, a major rationale offered for sustaining the manpower surplus was that seamen must be available for the periodic activation of the National Defense Reserve Fleet (NDRF), or the mothball fleet, to meet national defense needs. Once the emergency ends, the fleet is deactivated and demand for maritime manpower drops sharply.

The NDRF was activated during the Korean war and, beginning in 1965, for the Vietnam conflict. For the Vietnam sealift, the researcher found the maritime industry "woefully unprepared" to fill an estimated 8,000 jobs. Despite wage incentives and recruitment programs, few qualified former or potential seamen joined the sealift. The manpower shortage was finally ameliorated 2 years after the sealift began, largely because graduates of union training and upgrading programs were employed.

The researcher recommended that the Government take more responsibility for maritime manpower plan-

ning. He felt the Government should institute retraining programs to help seamen acquire skills in demand ashore. Further, manpower problems should be a primary consideration in Government planning for the fleet to replace the NDRF, which is now approaching obsolescence. The researcher also recommended that pension plans be vested in the individual, and that the hiring process be shifted from the unions to the steamship companies.

2.2.03 CORNELL UNIVERSITY ITHACA, N.Y.

GRANT NO. 91-34-66-47

Doctoral Candidate: Robert Brooks Richardson, New York State School of Industrial and Labor Relations.

Sponsor: Dr. Felician F. Foltman.

Dissertation: An Examination of the Transferability of Certain Military Skills and Experience to Civilian Occupations

Abstract: This study concerns the value in civilian employment of selected skills acquired during service in the U.S. Air Force. Data were obtained from military records and by mail questionnaires from 858 male ~~active~~ ^{former} and enlisted men who left the service voluntarily during 1965 and 1966, and who had worked in the following skill clusters: (1) For officers, the scientific-engineering cluster (e.g., communications, missiles, maintenance) and the administrative cluster (e.g., supply operations, data systems, personnel); (2) for enlisted personnel, the technical-craftsmen cluster (e.g., construction, missile electronics, fire protection) and the military service nontechnical cluster (e.g., food service, air police). Eighty percent of these servicemen found civilian jobs readily, primarily through their own efforts. The researcher concluded that although the occupational structures of the armed services and civilian industries were more similar than ever, the transfer of skills was selective: technical skills were more readily transferred than were nontechnical skills. Enlisted men lacking technical skills more often accepted jobs in the sales or service areas, and experienced subsequent dissatisfaction. The researcher recommended that nontechnically trained servicemen should receive additional education and training opportunities before separation, and concentrated employment assistance after separation. He also sug-

gested creation of a cooperative program between the Departments of Labor and Defense to provide preparation information and counseling on civilian employment opportunities. In his recommendations, the researcher anticipated many of the corrective measures instituted subsequently. A pamphlet based on the present study, with supplemental information on new programs for veterans, will be published in 1968 by the Manpower Administration.

2.2.04 HARVARD UNIVERSITY CAMBRIDGE, MASS.

GRANT NO. 91-23-66-15
91-23-67-25

Doctoral Candidate: Richard B. Freeman, Department of Economics.

Sponsor: Dr. John T. Dunlop.

Dissertation: The Labor Market for College Manpower

Abstract: This study examined the supply of high-level manpower in the U.S. job market since World War II, with emphasis on the career decisions of college students. High-level occupations were considered to be professional, technical, and managerial positions requiring college training, in the fields of engineering, physical and social sciences, and other professions. Data were derived from an examination of published materials and from a mail questionnaire of 2,800 college students concerning their occupational choices.

Students usually chose their careers during their college years, but the decisions of most were alterable, given new information. According to the researcher, students' knowledge of job opportunities in well-known occupations and in doctoral specialties was accurate, and their income expectations for their chosen careers were reasonable.

The most important factor in students' career decisionmaking was interest in the work. Income appeared to be of middling importance in decisions. However, the role of income seemed greater in decisions between a chosen career and its closest alternative. Thus, the researcher concluded that college students were responsive to economic incentive, as measured by salaries, in their occupational decisions.

The researcher concluded that the job market for college graduates usually operated in the classical man-

ner, with salaries adjusting to the relationship of supply and demand. For such fields as engineering and accounting, the researcher discerned a "cobweb" pattern in the fluctuations of manpower supply. That is, the proportion of men choosing these fields fluctuated cyclically, as large graduating classes depressed salaries, which reduced entrants, which raised salaries, and so on.

Because students responded rapidly to changes in the balance between supply and demand, the researcher inferred that shortages in specialty fields were likely to be shortrun phenomena. He attributed any lag in supply to the time needed for training, rather than to time necessary for learning about and responding to changed conditions.

The researcher suggested the following implications of his findings:

1. The number of specialists in a particular field may be increased by raising the salaries of these workers.
2. University salary scales must compete more effectively in fields with increasing industrial demand for workers, so that adequate teaching staff is available to train the supply of specialists needed in those fields.

As a direct outgrowth of this study, the Office of Manpower Research and National Science Foundation jointly funded a research contract under which the present researcher will examine factors affecting the demand for scientists, engineers, and technicians (see 1.1.22).

2.2.05 HARVARD UNIVERSITY CAMBRIDGE, MASS.

GRANT NO. 91-23-67-08

Doctoral Candidate: Daniel Quinn Mills, Department of Economics.

Sponsor: Dr. John T. Dunlop.

Dissertation: Factors Determining Patterns of Employment and Unemployment in the Construction Industry of the United States

Abstract: This study examined fluctuations in employment and unemployment in the U.S. homebuilding and contract construction industry since World War II. Both published and unpublished data, from government and private sources, were utilized.

According to the researcher, employment for construction workers has been characterized by intermittency, in both pronounced seasonality and extreme nonseasonal variations in level of building activity. Seasonality in employment has been due primarily to weather conditions, a problem magnified by the institutional practice of postponing work even though such conditions could be neutralized by technological advances. Aggregate level of building activity has not fluctuated extensively since the late 1940's. However, shifts in the geographic distribution of construction activity and in the composition of construction (residential, requiring such workers as carpenters and roofers, and nonresidential, requiring such craftsmen as operating engineers and boilermakers) have been major influences in postwar employment fluctuations.

Construction consistently reported high annual unemployment rates among American industries. The researcher found the seasonal pattern of building contributed approximately one-third of the reported unemployment, nonseasonal variations in level of building activity contributed almost half, and frictional unemployment (time out of work between jobs) accounted for much of the balance. The construction unemployment rate was also sensitive to the availability of suitable jobs elsewhere in the economy, particularly in the winter months, since construction workers made temporary transfers to other occupations with relative ease. The amount of unemployment experienced varied considerably by craft within the industry. The outdoor trades suffered more winter unemployment, with construction laborers facing the most serious unemployment problem.

The research reported that the Federal Government did not at present intervene in the construction industry with a view toward stabilizing employment. Rather, Federal expenditures contributed significantly to the seasonality of this employment.

The researcher suggested that patterns of employment could be improved through local action jointly by labor unions and contractor associations. He recommended that these parties together prepare and publish data on the current manpower situation for the locality, and attempt to promote scheduling of construction projects with regard to these conditions.

The researcher presented a paper based on this research at the December 1967 meeting of the Industrial Relations Research Association. This paper will appear under the title, "Manpower in Construction: New Methods and Measures," in the forthcoming *Proceedings of the Industrial Relations Research Association*,

December 1967, and an excerpt from the presentation was published in the *Monthly Labor Review* (April 1968). Material prepared for this dissertation is cited in several forthcoming publications. Under a contract with the Manpower Administration, the researcher is presently studying problems of manpower utilization within the construction industry (see 1.1.21).

2.2.06 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

GRANT NO. 91-24-66-45

Doctoral Candidate: Joan Rytina, Department of Sociology.

Sponsor: Dr. William H. Form.

Dissertation: The Ideology of American Stratification

Abstract: This study explored the question of which socioeconomic groups in America believed that the dominant ideology—the belief that America is a land of equal opportunity, that success is due to ability and hard work, and that political power is distributed among many different groups—correctly described the operation of American society.

Interviews were conducted with heads of households or their spouses living in the Muskegon, Mich., metropolitan area. The 200 middle-income respondents (having 1965 incomes between \$7,000 and \$25,000 for any family size) were derived largely from a systematic area sample. Through informants, assessed value of residences, and observation, the systematic sample was supplemented to include 47 rich respondents (having 1965 incomes of \$25,000 or more for any family size) and 107 poor subjects (having 1965 incomes of \$3,000 to \$3,500 for four persons, with different income specified for other family sizes).

According to the researcher, the poor were less likely than the rich to find the dominant ideology accurate. The poor usually saw the distribution of rewards as a result of social structural conditions (such as opportunities for jobs or education), and the rich saw the distribution of rewards as a result of favorable personal attributes.

Middle-income Negroes, poor Negroes, and poor whites usually had a stronger desire than other groups for the realization of a political system in which power is shared by all groups. The other groups, middle-

income and rich whites, were more likely to think that such a distribution of power already existed.

Among the researcher's inferences from these findings were the following:

1. American society's tolerance of poverty-level wages for such adult jobs as babysitting tended to validate the poor's belief that social structural conditions reinforced their poverty.

2. Because middle-income Negroes tended to attribute the distribution of rewards to social structural conditions, just as poor Negroes did, the first group appeared to be moving toward increased frustration with the system.

3. The rich, who tended to discourage Federal intervention on behalf of disadvantaged groups, seemed to have influence far beyond their actual numbers.

4. Sociologists ought to be more aware of social influence in their research.

5. Because questions in a generalized form drew different responses from more specifically phrased questions on the same subject, the researcher suggested that vague questions were apt to elicit responses lacking in social significance.

Two papers based on this dissertation were presented at the August 1968 meeting of the American Sociological Association. The researcher is preparing a longer paper for the *American Sociological Review*.

2.2.07 MICHIGAN STATE UNIVERSITY EAST LANSING, MICH.

GRANT NO. 91-24-67-03

91-24-68-09

Doctoral Candidate: Jon M. Shepard, Department of Sociology.

Sponsor: Dr. William H. Form.

Dissertation: Man-Machine Relationships, Attitudes Toward Work and Meanings in the Work Role

Abstract: This study explored the effects of particular kinds of technological systems on job content, attachment to work roles, and meanings in work. The researcher interviewed workers in the three relationships discerned between workers and modern technology: (1) Skilled artisans, workers in craft production systems, represented by a sample of 117 maintenance craftsmen in an auto plant; (2) special-purpose ma-

chine operators, workers in mechanized production systems, represented by 96 assembly line workers in an auto plant; and (3) machine monitors, workers in automated production systems, represented by 92 monitors in an oil refinery. In these interviews, information was gathered on workers' attitudes toward their jobs and toward work.

The researcher found that their work situation made assembly line workers most predisposed to alienation: They felt they lacked freedom in and control over their work; they saw little relationship between their jobs and work done elsewhere in the organization; and they considered that promotions were usually based on criteria other than merit. The monitors and the craftsmen both ranked low on these predisposing factors, but not consistently so.

Assembly line workers also ranked first in job alienation: They did not consider the organization's goals important to them personally; they treated work as a means to an end rather than as an end in itself; and they measured their own esteem in terms of activities other than work. In these respects, maintenance craftsmen ranked second and refinery monitors third.

Within the bounds of this study, the researcher concluded that workers in an automated plant were the least likely to experience feelings of separation from the world of work. He pointed out, however, that older workers (over 35) and those with higher incomes (over \$8,000) were less alienated than their younger and less affluent counterparts—a group dominated by assembly line workers. He also cautioned about broad generalization based on a study in two industries with many unique characteristics.

2.2.08 THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION COLUMBUS, OHIO

GRANT NO. 91-37-66-13

Doctoral Candidate: Leonard Emil Kreider, Department of Economics.

Sponsor: Dr. Herbert S. Parnes.

Dissertation: The Development and Utilization of Managerial Talent: A Case Study of Manufacturing Managers in Columbus, Ohio

Abstract: This study examined the mobility, educational background, experience, promotion patterns, and

functions of 498 managers above the working foreman level and employed by 51 manufacturing companies in the Columbus, Ohio, area. Data were obtained from a mail survey conducted in 1965. In analyzing the data, the sample was broken down by areas of departmental responsibility: general administration at high and low levels, finance, personnel, purchasing-marketing, design, and production.

According to the researcher, Columbus managers demonstrated little mobility during their careers—among either employers, occupations, industries, or geographic areas. The average manager changed employers only twice and changed industry and geographic area even less often. Over 40 percent of all shifts in employment status concerned occupation only, and almost all of these moves were within one area of departmental responsibility. The managers also made few moves into or out of the civilian labor force.

Nearly half of the managers were college graduates, and another one-fourth had some college education. Despite the diversity in all managers' educational background, the researcher discerned some patterns for those who attended college. A business major was common to most of the finance managers, and frequent for personnel and purchasing-marketing managers. Design managers, the group most likely to have attended college, usually studied engineering or the physical sciences. Only half of the production managers had gone to college, the lowest proportion for any departmental area.

According to the researcher, most managers believed that college education, preferably with a diploma, was desirable for management positions. In addition, managers with more formal education usually spent less time in nonmanagerial jobs than those with lower educational attainment. Thus, the researcher concluded that formal education did provide the general skills necessary to become a manager.

The researcher found that practical experience functioned more as a complement to, than a substitute for, formal education. As prerequisites to managerial jobs, most managers specified a number of years of experience and involvement in several specific tasks. Managers with higher educational attainment found their experience useful primarily in providing an overview of the company or industry. In contrast, managers with less formal education listed technical competence of rather specific types as a primary benefit of experience.

Distinct lines of promotion emerged for the different areas of departmental responsibility. High-level general administrators usually had experience in departmental

areas other than that of their present position. In all other areas, however, managers typically had considerable experience in specific nonmanagerial positions within their present area of responsibility: Finance managers usually had experience in accounting; design managers in scientific and technical positions; purchasing-marketing managers in sales; production managers in craftsmen and operative positions; and personnel and low-level general administrators in clerical positions.

The researcher found that a common core of managerial functions—planning, supervising, and coordinating—penetrated all areas of departmental responsibility. Managerial functions were not significantly related to age, salary, length of service in the present job, or general industry classification, but were related to level of management. On the whole, time spent planning or supervising decreased with higher educational attainment. Because the majority of managers found human relations with other workers the most difficult part of their job, the researcher inferred a need for training in communication and leadership skills.

2.2.09 OKLAHOMA STATE UNIVERSITY OF AGRICULTURE AND APPLIED SCIENCE, RESEARCH FOUNDATION STILLWATER, OKLA.

GRANT NO. 91-38-67-14

Doctoral Candidate: Paul Rountree Blume, Department of Economics.

Sponsors: Dr. Robert L. Sandmeyer and Dr. Larkin B. Warner.

Dissertation: An Evaluation of Institutional Vocational Training Received by American Indians through the Muskogee, Okla., Area Office of the Bureau of Indian Affairs

Abstract: This study attempted to evaluate the adult vocational training received by American Indians under Public Law 84-959, which provided Indians with up to 24 months of institutional or on-the-job training to reduce their unemployment rate. The institutional programs have no minimum course enrollments, all courses are conducted in recognized vocational training schools, and all courses are taught by full-time vocational education instructors. This study focused on the

training offered by the Muskogee, Okla., Area Office of the Bureau of Indian Affairs.

Information on employment experience, income, and labor force participation rates was compiled for 220 Indians both before their training and an average of 3 years after their training. In addition, social benefit-cost ratios were calculated for the training.

The researcher concluded that receipt and completion of training significantly improved income and employment rates. However, these increases varied widely among the occupations for which training was provided. Labor force participation rates also rose, but this difference could not be definitely attributed to the training. The social benefits from completed training were 2.4 times greater than society's cost for providing training.

Based on these conclusions, the researcher recommended increased funding for adult vocational training for Indians, stronger emphasis by counselors on the importance of completing training, and better counseling with respect to choice of occupation.

2.2.10 SYRACUSE UNIVERSITY SYRACUSE, N.Y.

GRANT NO. 91-34-67-54

Doctoral Candidate: John W. Pelosi, School of Education.

Sponsor: Dr. Julius S. Cohen.

Dissertation: A Study of the Effects of Examiner Race, Sex, and Style on Test Responses of Negro Examinees

Abstract: This study measured the effects of examiner race, sex, and manner of behavior on the test performance of 96 Negro males, volunteers from a Neighborhood Youth Corps project. Half of the 12 trained examiners were Negroes, half were whites, and each racial group consisted of three men and three women. Each examiner learned two styles of behavior toward subjects: a warm, friendly manner and an indifferent, impatient approach. The examiner characteristics of race, sex, and style, plus the factor of individual differences between examiners, yielded 24 examiner combinations, to each of which four subjects were randomly assigned. Examiners administered eight vocational aptitude tests to the subjects. The influence of examiner

characteristics was judged by analyzing variance in subjects' test scores.

The researcher found that none of the examiner traits, considered separately, had a significant effect on subjects' test performance. On only one test did the interaction of examiner traits significantly affect results: higher scores occurred under cold treatment by Negro male examiners than under similar treatment by examiners of any other race-sex combination. However, the researcher observed that higher average scores were usually associated with white examiners, examiners exhibiting a cold style of behavior, and men examiners.

The researcher cautioned against generalization from these findings on the following bases: (1) That the subjects realized their test performance was not critical; (2) that the voluntary process of selecting subjects might have screened out particularly anxious test-takers; and (3) that differences in examiner warmth or coldness, although validated, might not have been sufficiently potent.

2.2.11 TEXAS TECHNOLOGICAL COLLEGE LUBBOCK, TEX.

GRANT NO. 91-46-67-47

Doctoral Candidate: Garland Frank Lawlis, Department of Psychology.

Sponsors: Dr. Beatrix Cobb and Dr. Arthur Sweney.

Dissertation: Motivational Aspects of the Chronically Unemployed

Abstract: This study sought to determine which motivations were most characteristic of the chronically unemployed, defined as those who left more than six jobs in less than 6 months and worked less than 5 days on each job. Based on several psychological tests, 75 chronically unemployed males were compared with an equal number of employed males, matched for age, intelligence, race, and general educational level.

The researcher discerned four general areas of psychological makeup in which the two groups differed significantly. The chronically unemployed subjects were more likely to be very fearful of the world and their ability to meet its demands, to reject relationships with the opposite sex, to experience anxiety, and to have contradictory or unrealistic motivations.

These findings suggested to the researcher that efforts to alter these motivational characteristics of the chronically

cally unemployed must be made in order to lengthen the time they spend on jobs. Such efforts might involve research in program settings, such as increasing educational opportunities for the chronically unemployed to raise their self-esteem, establishing occupational information centers to help make their goals more realistic, or creating work tasks to increase the individual's personality integration. The researcher also proposed investigation of anxiety as a factor in work perseverance, and of neurotic symptoms among the chronically unemployed.

2.2.12 WASHINGTON UNIVERSITY ST. LOUIS, MO.

GRANT NO. 91-27-67-15

Doctoral Candidate: Robert Albert Ullrich, Graduate School of Business Administration.

Sponsor: Dr. Sterling H. Schoen.

Dissertation: A Study of the Motivating and Dissatisfying Forces in an Isolated Work Situation

Abstract: This study investigated the factors contributing to worker motivation and dissatisfaction in an isolated work situation. A case study, it focused on the maritime industry. Semistructured interviews were conducted with 54 licensed marine engineering officers in the U.S. Merchant Marine while their ships were in port. Additional data were derived from the researcher's observation of a ship's officers for the duration of a single voyage. The six engineering officers aboard were interviewed at the end of the voyage.

The researcher found that intrinsic job factors functioned as sources of satisfaction. Thus, the workers derived satisfaction from achievement in learning or doing something on the job, and the possibility of professional growth. These intrinsic factors were also closely associated with positive effects, such as lower turnover, better work performance, more positive attitudes toward work, improved physical or mental states, and/or improved interpersonal relations.

On the other hand, some job conditions—interpersonal relations with subordinates, technical supervision, company policies and administration, and personal isolation—were sources of dissatisfaction. Others were not significantly related to either satisfaction or dissatisfaction: Recognition, advancement, salary, inter-

personal relations with peers, work environment, nature of the work, personal aspects, job security, and physical safety.

To develop and maintain a capable, motivated, and loyal work force, the researcher proposed measures which would lend support to the individual seaman's needs. He suggested that interpersonal relations on board might be improved by: (1) Exposing all licensed officers and maritime academy students to management development courses; and (2) encouraging ship firms to remove such individuals as alcoholics from shipboard employment. In addition, the researcher thought these companies should bring living and working conditions on old ships up to the standard of newer ones, provide more opportunities for individuals to achieve desired work-related goals, and minimize any unnecessary pro-tractions of seamen's isolation.

2.2.13 UNIVERSITY OF WISCONSIN MADISON, WIS.

GRANT NO. 91-53-66-11

Doctoral Candidate: James S. Crabtree, Department of Industrial Relations.

Sponsor: Dr. Gerald G. Somers.

Dissertation: The Structure of Related Instruction in Wisconsin Apprenticeship Programs

Abstract: This study investigated the structure of related instruction offered to apprentices in Wisconsin vocational schools from 1960 to 1966. Data were derived from interviews with selected administrators from the offices responsible for related instruction programs: The Apprenticeship Division of the Industrial Commission; State Board of Vocational, Technical and Adult Education; vocational schools; and the Office of Occupational Extension Coordinator for the Circuit program, under which curriculums are standardized for the State and instructors teach at a number of schools each week.

The researcher found that in 1966, 406 related instruction programs, which had specific trade curriculums, hour requirements, and attendance patterns, were offered in 37 Wisconsin vocational schools. These programs represented 79 different trades. Most of these programs emphasized the individual, both by allowing apprentices to enter school at any time and by hav-

ing the apprentice study on his own, instead of with a class.

According to the researcher, there were two curriculum patterns for related instruction:

1. The standardized circuit trade curriculums were tightly structured and emphasized trade technology.

2. The resident program curriculums, for which local school administrations had direct responsibility, usually combined technical information with some general education courses.

In 1964-1965, circuit teachers on the whole had more years of teaching and occupational experience than resident faculty. More of the resident teachers, however, had college degrees. The researcher concluded that the teaching staff was highly qualified and represented one of the strong points of the Wisconsin apprenticeship program.

The researcher suggested that schools' enrollment policies be altered to a semester or quarter basis of entry so that more flexible and effective instruction techniques might be offered. He also recommended that standardized core curriculums be established for all trade programs in the State.

2.2.14 UNIVERSITY OF WISCONSIN MADISON, WIS.

GRANT NO. 91-53-67-20

Doctoral Candidate: Arie Shirom, Industrial Relations Research Institute.

Sponsor: Dr. Jack Barbash.

Dissertation: Industrial Cooperation and Technological Change: A Study of Joint Management-Union Committees

Abstract: This study attempted to evaluate the role and potential of joint management-union committees (established to help resolve industrial relations issues) in the process of adjustment to technological change. Data were gathered in a mail survey of local unions with 100 or more members each in Wisconsin, Minnesota, and Illinois industrial establishments. A mail survey was also made of research directors of international unions whose membership was drawn mainly from industry. Interviews were conducted with approximately 200 representatives of 44 joint management-union committees which dealt with issues of adjustment to tech-

nological change. Joint committees appeared to the researcher to give relatively low priority to consideration of problems regarding technological change. Committee consideration of safety, welfare, training, and job evaluation issues usually preceded any discussion of adjustment to technological change. In fact, the technological change issue was so intertwined with the total pattern of issues that, for most practical purposes, the researcher concluded it could not be considered independently. Cooperative planning between management and unions appeared to the researcher to be a preferred, more effective procedure of adjustment to technological change than other approaches. Furthermore, a joint committee arrangement seemed to be a more efficient instrument of cooperative planning than informal arrangements.

The data on planning experiences in other countries suggested to the researcher that the effectiveness of technological change was substantially enhanced if ways of coping with social consequences of any change were planned cooperatively by representatives of labor and management in a sustained manner and well in advance of the change.

2.2.15 YALE UNIVERSITY NEW HAVEN, CONN.

GRANT NO. 91-07-66-06

Doctoral Candidate: Daniel C. Rogers, Department of Economics.

Sponsor: Dr. Neil W. Chamberlain.

Dissertation: Private Rates of Return to Education in the United States: A Case Study

Abstract: This study evaluated education as a form of investment for the individual by computing the rate

of return from completion of various levels of schooling beyond the eighth grade. A longitudinal case study was made of 364 men who had been in the eighth grade in 1935 in several Connecticut schools. Data were derived from questionnaires and from school records.

Lifetime earnings were estimated for each individual by using extensive data and a trend factor to account for growth in the economy. The relationship between the costs of education to the individual (direct costs and as foregone earnings) and the benefits of education (his added earnings afterwards) was computed. The effects on lifetime earnings of socioeconomic background, present geographic location (city size, region of the country), motivation, and ability (in terms of IQ) were also calculated, in order to isolate the relationship between education completed and lifetime earnings.

Expenditure on education appeared to the researcher to be a sound investment for the individual for all levels through college graduation. Rates of return on individuals' investments in education were competitive with the return realized on other forms of investment, and net lifetime earnings increased as education increased, all other things being held equal. The researcher found that the amount of education attained paid off for all people, regardless of intelligence (at least within wide limits). He considered confirmed the argument that "all youngsters regardless of ability can profitably continue their schooling, at least through secondary school graduation," given the small number of unskilled jobs available and employers' preference for workers with high school diplomas.

According to the researcher, postgraduate education was not an economically sound investment for the individual who was paying its full private cost. However, it became a sound investment for the individual when at least half the private cost of that education was paid by outside groups.

This dissertation is expected to appear in *Yale Economic Essays*.

2.3 PROJECTS COMPLETED, JULY 1, 1967-JUNE 30, 1968—Research Project Grants Under the MDTA

2.3.01 EDUCATIONAL TESTING SERVICE PRINCETON, N.J.

GRANT NO. 91-32-68-18

Principal Staff: Dr. Benjamin Shimberg.

Report Title: A Pilot Study to Determine the Feasibility of Investigating Nationally the Impact of Licensing Practices on the Availability and Mobility of Non-Professional Manpower in Occupations Where Skill Shortages Exist

Abstract: Primarily through personal interviews with licensing authorities, the researcher obtained information about the impact of licensing on job entry and geographic mobility. Licensing procedures for several nonprofessional shortage occupations were studied in the following five States, the most populous in major geographic regions of the country: California, Florida, Illinois, New York, and Texas.

According to the researcher, barriers to licensing included poor communication between licensing boards and prospective applicants, misleading questions on application forms, subjective evaluations of applicants' education and/or experience, hidden costs in the application and licensing procedure, written tests emphasizing recall of facts and trivial material, subjective performance ratings on work-sample examinations, substantial fluctuations over time and in different States in the proportion of applicants who pass similar tests, variations in reciprocity agreements and license endorsement arrangements among States, and limited license validity among municipalities within a State. The researcher concluded that licensing inhibited both job entry and interstate mobility.

To investigate further these barriers to employment, the Office of Manpower Research is developing two research contracts in the area of licensing practices. Under one contract, the present researcher will examine more intensively the qualitative problems uncovered in this feasibility study. The second contract will be a study in three States to determine whether quantitative information can be obtained on licensing and whether a nationwide survey can lend insight into the scope of the problem (see 1.1.33).

Copies of this pilot study have been sent to the Employment Services in the five States surveyed.

2.3.02 THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, D.C.

GRANT NO. 91-09-66-23

Principal Staff: Dr. John Herbert Norton, School of Government and Business Administration.

Report Title: Accuracy Analysis for Projections of Manpower in Metropolitan Areas

Abstract: This study was concerned with errors in manpower projections, that is, with the differences between predictions and actual outcomes. To judge such errors, the research explored the applicability of several analytical techniques, or methods of accuracy analysis, to ex post facto projections based on naive, allocative, and other forecasting models.

The researcher found the summary measures of accuracy analysis, i.e., the coefficient of correlation, standard error of estimate, average absolute error, range, and mean error, somewhat useful for judging the superiority of a projection model. However, he cautioned against making inferences from his findings, and recommended development of better methods of accuracy analysis.

The researcher was unable to find any one type of model for making manpower projections that had been used consistently over time or among areas. Nor did he find existing projections which provided full details on the assumptions, data, and procedures used to make them. Thus, he recommended that more and better data be collected from more frequent population censuses and area sample surveys. He also found need for more powerful methods of ex post facto experimentation, which would permit better control of the variables and the application of more sophisticated statistical analysis.

2.3.03 UNIVERSITY OF ILLINOIS URBANA, ILL.

GRANT NO. 91-15-66-29

Principal Staff: Dr. Adolf Sturmthal, Institute of Labor and Industrial Relations.

Report Title: A Study of Methods for Forecasting Employment

Abstract: This methodological study evaluated the effectiveness of several methods for projecting manpower requirements. Data for the U.S. railroad industry

from 1947 to 1960 were used to project total and occupational employment on the railroads for 1961 to 1964. These projections were then compared with actual figures. Of the linear regression techniques tested, the researcher concluded, extrapolation from observed values of employment, regressed in time, produced the best estimates of the rate of change in employment. Still better, he found, were estimates derived from the relationship between factor inputs and outputs of the industry, that is, those based on a production function. Finally, he found that all of the techniques produced more accurate projections for aggregate than for occupational employment. Applicability of these findings to other industries may be limited, according to the researcher, since the railroads are a regulated industry and since there has been a steady downtrend in total railroad employment. Copies of this report were distributed to the Interstate Commerce Commission and the Bureau of Labor Statistics, U.S. Department of Labor, for their use in making projections.

2.3.04 UNIVERSITY OF MARYLAND COLLEGE PARK, MD.

GRANT NO. 91-22-68-02

Principal Staff: Dr. John W. Wysong, Department of Agricultural Economics.

Report Title: (1) Private and Public Farm Manpower Policy Implications of the Dairy Farm Labor Resource Adjustment Process; (2) Factors Affecting Labor Use and Worker Productivity on Efficient Dairy Farms; (3) Labor Productivity and Labor Force Characteristics of Selected Types of Commercial Farms

Abstract: In the first part of this study, data were collected and analyzed concerning the farm labor adjustment process between 1956 and 1966 on a sample of 203 dairy farms in Maryland. The data indicated a 41-percent decrease in the number of farms and a 35-percent decrease in farm labor used. Ninety percent of the farms that went out of business had herds of less than 50, and farms of this size accounted for 85 percent of the decrease in farm labor use. More than three-fourths of the remaining farms increased the size of their herds, but the total number of cows declined by 10 percent. The number of cows handled per laborer also rose, despite the increase in the number of workers on the smaller farms.

The researcher predicted that the dairy farm labor force would continue to decrease as the number of dairy farms contracts, as capital investment in new equipment substitutes for direct farm labor, as off-farm employment opportunities increase, and as milk production per cow increases.

The second part of this study evaluated the potential for releasing manpower from dairy farming by increasing the productivity of these farms. An interview survey was conducted in 1967 on 46 specialized dairy farms having 65 or more cows and located in three counties of western Maryland.

The number of cows handled annually per worker and the quantity of milk sold annually per man, the researcher concluded, could be increased considerably on individual dairy farms. To achieve the potential, smaller farms should bring their herds up to 70 or more cows, at which point the work capacity of an individual would be fully utilized, relative to the types and amounts of capital resources available. Further, the researcher found advantages of flexibility in scheduling, utilization of farm facilities and operators' abilities, and economics of size on farms with three or more full-time workers, given high numbers of cows per man and crop acres per man. Productivity could also be increased through substantial new capital investment in physical facilities and in farm manpower. Similar investments would be needed to create and fill new off-farm jobs with the workers released from farm processes.

The last part of this study examined labor force characteristics on five major types of farms: dairy, beef, general, fruit, and poultry. Data were based on a 1967 interview survey of 223 farms in western Maryland.

Within and among the different types of farms, the researcher found wide variations in size and composition of the labor force. The median size of all farms' labor forces was two man-equivalents, with fruit farms having the largest labor forces. Fruit farms used three-fourths of all the hired labor available for the sample, and dairy farms used 63 percent of the family labor available.

The researcher found a wide distribution of levels of labor productivity within and among the different farm types. There appeared to be substantial gains in productivity per worker on individual farms as the output per farm increased, up to the point at which managers could fully utilize their available labor force. In addition, worker productivity was usually higher on farms with larger acreages and more livestock.

**2.3.05 MICHIGAN STATE UNIVERSITY
EAST LANSING, MICH.**

GRANT NO. 91-24-66-42

Principal Staff: Dr. James Riddle Hundley, Jr.,⁶ Department of Sociology and Rural Manpower Center.

Report Title: A Study of Interpersonal Relations Among Managers and Employees of Fruit and Vegetable Farms with Emphasis on Labor-Management Practices Utilized

Abstract: This study analyzed labor-management relations on fruit and vegetable farms in Michigan in 1967. Interviews were conducted with operators of 76 farms, selected in a random area sample of the 10 Michigan counties with the highest production of fruits and vegetables. Also interviewed were 238 members of migrant crews, all either heads of households or single males over 16 years of age.

Mexican American farmworkers were found by the researchers to be more stable and dependable, and were preferred by two-thirds of the farmers interviewed over other types of migrant work groups, primarily Negroes or southern whites. According to the researchers, farmers talked with crew leaders but rarely had direct contact with the people in their crews. Migrant workers usually had little meaningful contact with the nearby community, and the ethnic groups on any one farm appeared to associate little with one another.

The researchers found that migrants' propensity to seek nonfarm employment increased with education and with exposure to nonfarm employment opportunities in their hometowns. This propensity decreased with advancing age. Mexican Americans demonstrated considerably less desire for nonfarm employment than either Negro or southern white respondents. However, Mexican Americans and Negroes placed a higher value on education for their children than did the southern whites. The researchers thus anticipated that the children of the first two groups would be better able to fit into the industrial job market than either their parents, the southern whites, or the children of the southern whites.

From their discussions with migrant farmworkers, the researchers concluded that the migrants' satisfaction depended just as much on the farmer's having a concerned and sympathetic attitude toward the crew

and toward migrants in general as on the wages or housing the farmer provided. Most farmers, however, felt that paying a fair wage and providing good housing were more important than worker-farmer attitudes.

One-fourth of the farmers used mechanical harvesting equipment. This equipment was rarely operated by migratory farmworkers, who generally had little mechanical skill or experience. Given the trend toward increased mechanization, the researchers recommended either training migrants to operate harvesting equipment or modifying the equipment so that its operation requires even less manpower.

In order to remain competitive in tomorrow's agriculture, the researchers felt that farmers must develop a more positive awareness of their personal relationships with their workers. They must also simplify work tasks to utilize more effectively the unskilled workers who will be available to them.

The Rural Manpower Center plans to publish a popularized version of this report.

**2.3.06 THE UNIVERSITY OF MICHIGAN—
WAYNE STATE UNIVERSITY
ANN ARBOR, MICH.**

GRANT NO. 91-24-67-24

Principal Staff: Jeffry Piker, Institute of Labor and Industrial Relations.

Report Title: Entry into the Labor Force: A Survey of Literature on the Experiences of Negro and White Youths

Abstract: This report is a synthesis of some of the literature about the process by which Negro and white youth enter the labor force. It covers 179 studies, both national and local in scope, written within the last 15 years, and emphasizing noncollege-educated youth.

The researcher sought material touching on any aspect of his conception of entry into the labor force: a process of personal movement from a nonwork to a work status. He considered this mobility affected by an individual's qualifications, aspirations, and expectations, as well as by institutional arrangements and organizational policies and practices. To the researcher, the entry process spanned the transition from youth to adulthood, school to work, and economic dependence to independence.

⁶ After the death of Dr. Hundley, Charles W. Given, William E. Vredevoogd, and Maurice E. Voland completed the study.

2.3 Completed Research Project Grants

The researcher concluded that the causes, nature, and extent of racial inequality in the entry process are only vaguely understood. Furthermore, the studies he examined provided little information on the relative influence on entry of such factors as education and training, socioeconomic background, orientation toward work, and job information. The researcher criticized the literature as a whole for stressing outcomes rather than the process of the entry. In addition, he found that most studies relied on youth's anticipations and memories rather than on observation of actual behavior.

The researcher is currently preparing his doctoral dissertation under a Manpower Administration grant on the subject of patterns of access to entry-level jobs (see 1.3.46).

2.3.07 UNIVERSITY OF MINNESOTA MINNEAPOLIS, MINN.

GRANT NO. 91-25-67-12

Principal Staff: Dr. Edward Gross, Departments of Sociology and Industrial Relations.

Report Title: Problems of Counseling Special Populations Pursuant to Government Manpower Programs

Abstract: This study considered whether the preponderance of minority groups in the caseloads of Youth Opportunity Centers might affect the kind and value of the counseling in these centers. Youth Opportunity Centers (YOC's) have been established in major cities since 1965 to coordinate Department of Labor programs for developing youth employability and employment opportunities. The YOC counselor decides on, and arranges for, the sort of help each individual needs—medical, psychological, reading, job-interviewing skills, consumer education, occupational information, market information, family counseling, or job experience.

Youth Opportunity Centers in 12 cities were selected for study, because they offered a representative range of clients, including Negroes, Puerto Ricans, American Indians, Mexican Americans, Appalachian whites, other migratory laborers, and smaller numbers of other disadvantaged groups. Interviews were conducted with Labor Department regional office persons, the manager of each YOC, counseling supervisors, a sample of coun-

selors with differing amounts of experience, a sample of other professional persons, and a small number of clients.

It appeared unlikely to the researcher that the Youth Opportunity Center's use of counseling would make any significant impact on the employability of an individual. Usually not fulfilled in the YOC setting were the following assumptions necessary for successful counseling: (1) That the client comes voluntarily, (2) that he wants help, (3) that he accepts the professional authority of the counselor, (4) that the client comes as an individual because he desires to change as an individual, and (5) that the counselor accepts the client. These assumptions appeared least likely to pertain when a high proportion of clients were members of minority groups and when the counselors were college-educated whites, both of which conditions characterized YOC's.

The researcher concluded that it was essential to assist the client to realize his potentialities, and in such a way that his ethnic identity became a positive source of pride and a major motivator of behavior. To help achieve this end, he made the following recommendations:

1. Members of minority groups should work as sources of information, public relations people, and community workers in conjunction with YOC's.
2. The YOC should hire as many counselors as possible from the groups represented by the clients.
3. YOC's should actively relate their organizations to ethnic agencies and organizations in the community.
4. Some indigenous centers to increase the employability of particular ethnic groups should be supported.
5. The role and limitations of the counselor should be clarified.

A report on this study was made to the National Manpower Advisory Committee Panel on counseling and selection in May 1967. A nontechnical summary of this final report was published in the January-February 1968 issue of the *Employment Service Review*.

2.3.08 NEW YORK UNIVERSITY NEW YORK, N.Y.

GRANT NO. 91-34-67-06

Principal Staff: Dr. Jeanne L. Noble, School of Education.

Report Title: An Exploratory Study of Domestic's View of Their Working World

Abstract: This study developed a methodology for a proposed intensive study which would gather data on domestics' working world so that training and advisement programs might be instituted. The present feasibility study focused on household workers living in the Central Harlem area of New York City.

The researcher found it impossible to obtain a scientific sample without establishing a complex, careful rapport-building plan which admitted researchers into the target area. (In the actual data gathering in Harlem, the researcher concluded that only interracial teams should operate.) The final sample consisted of 54 domestics selected at random from lists of domestics compiled by elected block representatives in two of the five geographic areas encompassed by the Harlem Neighborhood Boards operating under the Haryon Act. In addition, six employers of these domestics were selected for interviewing.

Based on hypotheses emerging from open-end interviews conducted with the subjects, the researcher developed structured interview schedules for both domestics and their employers. In these schedules, both sets of subjects were asked, from their respective points of view, about employment background; job satisfaction, dissatisfaction, and expectations; working conditions; perception of the job; employer-employee relationship; desirability of training; and feelings of discrimination in employment. Domestics were also interviewed about their perceptions of themselves in relation to friends, community organizations, and the world of work.

A 3-day observer-participant study was conducted with five domestics, selected from the sample as "functional leaders." Although this procedure contributed some knowledge of domestics' working role and life style, the researcher concluded the procedure did not warrant inclusion in a larger study.

2.2.09 OAKLAND SMALL BUSINESS DEVELOPMENT CENTER, INC. OAKLAND, CALIF.

GRANT NO. 91-45-67-29

Principal Staff: Dr. Jack Brown, Director of Research.

Report Title: A Study of the Marjovon Implications of Small Business Financing

Abstract: This study examined the characteristics of 202 Anglo-owned⁷ small businesses and 149 small businesses owned by Negroes, Mexican Americans, or Orientals in Oakland, Calif. About two-thirds of the businesses were located in ghetto areas, and the remainder were in middle-class areas.

In gross annual sales and employment, Negro and Mexican American businesses were smaller than Anglo businesses in ghetto areas, and all the ghetto businesses were smaller than the nonghetto enterprises. Within the same lines of business, Anglos also tended to have larger operations.

For the businessmen surveyed, proportionately more bank loans were granted to those in middle-class areas than to ghetto entrepreneurs. Among the racial and ethnic groups, proportionately more loans were made to Anglos, Mexican Americans, and Orientals than to Negroes. The amount of money loaned to Anglos exceeded amounts loaned to Negroes and Mexican Americans. The researcher found that Negroes suffered from a chronic shortage of capital, which they often tried to overcome by borrowing from finance companies, friends, or relatives, or by "moonlighting."

2.2.10 UNIVERSITY OF PENNSYLVANIA PHILADELPHIA, PA.

GRANT NO. 91-40-67-02

Principal Staff: Ann R. Miller, Population Studies Center.

Report Title: Current Occupation and Past Training of Adult Workers

Abstract: This study examined the linkages between a person's occupation and his education or training specific to that occupation. Information was derived from tabulations of data collected in a Department of Labor survey in April 1963, and analyzed in *Formal Occupational Training of Adult Workers*, Marjovon/ Automation Research Monograph No. 2 (see 2.1.39). The original study focused primarily on the nature, extent, and utilization of the vocational training taken by members of the experienced civilian labor force aged 22 to 64 who had completed less than 3 years of college. The present study considered: (1) the specific training

⁷ The researcher defined "Anglos" to include all white Americans except those of Latin American descent.

background of the labor force according to its current occupational affiliation, and (2) the current occupational affiliation of workers according to their specific fields of training.

Professional, technical, and managerial occupations drew the highest proportions of workers with 3 or more years of college. The work of professional and technical workers was usually closely tied to their major field of study. In blue-collar jobs, workers with formal occupational training and with training specific to the job were concentrated at the top of the hierarchy of skills, that is, among craftsmen and foremen.

Viewing kind of training as a determinant in occupational choice, the researcher found the highest proportions of workers actually working in the occupation for which they had been trained in occupations requiring licensing (such as professional nursing, cosmetology, and barbering). Higher proportions of men trained in crafts were working in their specific occupations than men trained in white-collar jobs, although the latter generally worked somewhere in the white-collar field. On the whole, women utilized skills acquired in formal occupation training to a greater extent than men.

The researcher considered the present study's perspectives on occupation and training background significant for manpower analysts and educational planners.

2.3.11 PURDUE RESEARCH FOUNDATION LAFAYETTE, IND.

GRANT NO. 91-16-66-28

Principal Staff: Dr. Carolyn Cummings Perrucci, Departments of Sociology and Engineering Administration.

Report Title: Engineers and Scientists: A Comparative Analysis of Professional Values and Behavior

Abstract: This study explored the question of whether scientists and engineers are professionals, and, if so, whether they are members of the same professional group. Data were collected by mail questionnaires from random samples of 3,523 Purdue University alumni who graduated between 1947 and 1964 with bachelor's, master's, and doctoral degrees in 11 engineering subgroups and four science subgroups.

The data were analyzed in terms of three criteria of occupational professionalism. The first, adherence to scientific values, characterized some engineering and science graduates, primarily doctoral degree recipients in both fields. Graduates' adherence to such scientific values as interest in basic research, publication, and dissemination of research findings was closely associated with the frequency of their contact as students with faculty members outside class.

The second criterion concerned involvement in specialized work activities requiring relatively high levels of responsibility within the work setting. Recipients of advanced degrees, especially the doctorate, in both engineering and science, appeared to approach this traditional model of professional work behavior. However, the researcher found sufficient differences in areas of knowledge and in function and detailed work activities on the part of some engineers and scientists to consider them members of different professions.

The third criterion concerned involvement in professional activities outside the organization, such as being a licensed member of an engineering or scientific occupation, having membership in national professional societies, applying for or holding patents, and writing books.

The researcher found little evidence of such involvement among either engineers or scientists.

2.3.12 SAM HOUSTON STATE COLLEGE HUNTSVILLE, TEX.

GRANT NO. 91-46-66-72

Principal Staff: Dr. George G. Killinger, Institute of Contemporary Corrections and the Behavioral Sciences.

Report Title: Job Obsolescence in the Law Enforcement and Correctional Field

Abstract: This study attempted to determine training needs for present and future law enforcement and correctional officers, and to create a model educational program to meet these needs. Present needs were analyzed by comparing two sets of data: (1) Information on job skills, education, and general background of 175 officers at the Conroe and Dallas, Tex., police departments and of 168 line officers at the Texas Department of Corrections, a statewide correctional agency for adults; and (2) skill and educational requirements as inferred from job description bulletins and announce-

ments, and from the curriculums of inservice training programs in Texas.

The researcher found that in the correctional sample, 37 percent of the lower ranks and 11 percent of the command officers did not meet present minimum requirements. In the Dallas police sample, however, all but 5 percent met minimum requirements. In perceptions of training needs, the correctional sample stressed inservice training and college work, while law enforcement officers emphasized higher minimum requirements, including such background as military experience and some college.

The researcher predicted that future manpower needs in the correctional field would reflect the increasing emphasis on rehabilitation and resocialization of offenders in the community. He envisioned law enforcement officers as specialists in public relations. For both fields, the researcher anticipated better educated officers with increased professional identification and a greater sense of community involvement.

A copy of this report was sent to the Joint Commission on Correctional Manpower and Training, Inc., for use in their \$2 million, 3-year study on manpower problems in the correctional field.

2.3.13 WEST VIRGINIA UNIVERSITY MORGANTOWN, W. VA.

GRANT NO. 91-52-66-56

Principal Staff: Dr. Robert W. Miller, Institute for Labor Studies.

Report Title: Social Psychological Factors Associated with Responses to Retraining

Abstract: This study explored the apparent failure of an MDTA program for training highway construction machinery operators in West Virginia in 1965 and 1966. Interviews were conducted early in

1967 with 279 of the 418 men graduating from this program. Officials of the West Virginia State Departments of Employment Security, Welfare, and Vocational Education; program instructors; a field coordinator of training; and several foremen from State construction companies were also interviewed.

Although the training program was constructed in cooperation with a State contractors' association and the appropriate union, the researcher considered the design of the program inadequate. He found the 10-week training period too short, no provision made for time lost due to inclement weather, and insufficient equipment available. As a result, it appeared that only the most gifted men in the program acquired the minimum skills necessary to obtain and hold a job as an operating engineer. In fact, only one-fourth of the men worked in such jobs at any time after training.

In addition to inadequate training, the researcher attributed the men's difficulties in finding jobs to: (1) The failure to provide a ladder of entry-level jobs appropriate to various skill levels; (2) the failure to involve potential employers in the programs; and (3) the failure to provide instruction in how to search for jobs, counseling, or referral services.

When they entered training, the men had been unemployed for an average of 27 weeks and had worked only intermittently in unskilled or semiskilled jobs. The average man was 33 years old and had completed 8 years of school.

According to the researcher, the typical pattern of intermittent, unskilled work still predominated after training. Those with a more successful work history before training were also successful afterwards. Further, such success was significantly associated with both formal and informal ties to the broader community, and with confidence in one's ability to cope with the problems of the job and to satisfy needs through employment. Success was not significantly related to the strength of the men's economic drives or to their willingness to accept jobs as a means of achieving economic goals.

3. LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68

**This section includes the completed reports described in section 2
and those completed prior to July 1, 1967.**

3.1 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Contracts

<i>Contractor, Investigator(s), and Contract No.</i>	<i>Title of Report</i>	<i>Source of Copies (See abbreviations key and explanation, p. 144)</i>
3.1.01 American Association of University Women Educational Foundation— ELEANOR F. DOLAN No. 81-08-18	Counseling Techniques for Mature Women— Report of the Adult Counselor Program, June 14-August 6, 1965	CFSTI-PB 177322.
3.1.02 American Institutes for Research— JAMES W. ALTMAN and EDWARD J. MORRISON No. MDTA 37-64	School and Community Factors in Employment Success of Trade and Industry Course Graduates	
3.1.03 Arthur D. Little, Inc.— ARTHUR A. BROWN No. MDTA 17-64	Analysis of Automation Potential by Means of Unit Operations	CFSTI-PB 177415.
3.1.04 Auerbach Corp.— RICHARD RIDALL and MURRAY DODGE No. OAM 7-63	A Study of Manpower Requirements for Technical Information Support Personnel	CFSTI-PB 177331 (full report); MA—Manpower for Technical Information Work—A Pilot Study, Manpower/Automation Research Monograph No. 1, 1964 (summary).
3.1.05 Behavior Research Institute— SHELDON J. LACHMAN and BENJAMIN D. SINGER No. 81-24-68-03	The Detroit Riot of July 1967—A Psychological, Social and Economic Profile of 500 Arrestees	CFSTI-PB 178035 (full report); MA—The Detroit Riot . . . A Profile of 500 Prisoners (summary); and "Profile of an Urban Rioter," <i>Employment Service Review</i> , March-April 1968, pp. 38-40 (digest).

- 3.1.06 Bureau of Social Science Research,
Inc.—
LAURE M. SHARP and ALBERT
D. BIDERMAN
Nos. MDTA 16-63 and 81-08-26
- 3.1.07 California, University of, Berkeley—
E. R. F. W. CROSSMAN ET AL.
No. 81-04-05
- 3.1.08 California, University of, Berkeley—
MARGARET S. GORDON
No. MDTA 8-63
- 3.1.09 California, University of, Berkeley—
R. A. GORDON
No. MDTA 32-64
- 3.1.10 Cambridge Center for Social Studies—
REV. JOSEPH M. BECKER, S.J.
No. 81-23-66-03
- 3.1.11 Census, Bureau of the—
WILSON H. GRABILL
No. MDTA 27-64
- 3.1.12 Census, Bureau of the—
STANLEY GREENE
Nos. MDTA 28-64 and 81-09-66-06
- 3.1.13 Census, Bureau of the—
DAVID P. McNELIS
No. 81-09-66-10
- The Employment of Retired Military
Personnel
- Evaluation of Changes in Skill Profile and
Job Content Due to Technological Change:
Methodology and Pilot Results from the
Banking, Steel and Aerospace Industries
- Retraining and Labor Market Adjustment
in Western Europe
- Long-Term Manpower Projections—Pro-
ceedings of a Conference on Unemployment
and the American Economy, June 25-26,
1964
- Supplemental Unemployment Benefits
- Childspacing: U.S. Census of Population,
1960, Subject Reports, Series PC(2)-3B
- Labor Reserve: U.S. Census of Population,
1960, Subject Reports, Series PC(2)-6C
- Characteristics of Local Government Em-
ployees—A Pretest Survey
- CFSTI-AD 646463 (full report); MA—"Out
of Uniform," reprint from *Monthly Labor
Review*, January and February 1967 (ex-
cerpts); Manpower/Automation Research
Notice, 1966 (digest).
- CFSTI-PB 174221 (full report); ERIC-ED
015326 (\$12.32; Mf \$1.25, full report);
MA—Manpower/Automation Research No-
tice, 1966 (digest).
- CFSTI-AD 603647; GPO—same title, Man-
power/Automation Research Monograph
No. 4, 1965 (\$1.75).
- CFSTI-PB 177432.
- CFSTI-PB 178389 (original report); Johns
Hopkins Press, Baltimore, 1968, *Guaranteed
Income for the Unemployed: The Story of
SUB* (\$12; book based on study).
- GPO—1968 (\$1).
- GPO—1966 (\$1.50).
- CFSTI-PB 177323.

3.1 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Contracts—Continued

<i>Contractor, Investigator(s), and Contract No.</i>	<i>Title of Report</i>	<i>Source of Copies (See abbreviations key and explanation, p. 144)</i>
3.1.15 Colorado, University of— LESLIE FISHMAN ET AL. No. MDTA 42-64	Methodology for Projection of Occupational Trends in the Denver Standard Metropolitan Statistical Area	CFSTI-PB 177325; ERIC-ED 016132 (\$8.16; Mf \$1).
3.1.16 Columbia University— DALE L. HIESTAND No. MDTA 13-63	Economic Growth and Employment Opportunities for Minorities	Columbia University Press, New York, 1964 (\$6).
3.1.17 Columbia University— ELI GINZBERG, DALE L. HIESTAND, and BEATRICE G. REUBENS No. MDTA 10-64	The Pluralistic Economy	McGraw-Hill Book Co., New York, 1965 (\$1.95, paperback); MA—Expanding Employment in a Pluralistic Economy, Seminar on Manpower Policy and Program, October 1965 (summary).
3.1.18 Columbia University— AARON W. WARNER and PAUL H. NORGREN No. MDTA 15-64	Obsolescence and Updating of Engineers' and Scientists' Skills: A Pilot Study	CFSTI-PB 178168; ERIC-ED 015324 (\$6.64; Mf 75 cents).
3.1.19 Columbia University— HARRY I. GREENFIELD No. 81-31-12	Manpower and the Growth of Producer Services	Columbia University Press, New York, 1966 (\$6); ERIC-ED 016143 (Mf 75 cents).
3.1.20 Columbia University— JAMES W. KUHN No. 81-31-12	Scientific and Managerial Manpower in Nuclear Industry	Columbia University Press, New York, 1966 (\$7.50).
3.1.21 Columbia University— ELI GINZBERG No. 81-34-66-02	The Middle Class Negro in the White Man's World	Columbia University Press, New York, 1967 (\$5).
3.1.22 Commission on Human Resources and Advanced Education— JOHN K. FOLGER No. 81-09-66-16	Symposium on Manpower Theory	CFSTI-PB 177412; The Journal of Human Resources, Spring 1967.

- 3.1.23 Denver, University of—
JAMES F. MAHAR and GEORGE
E. BARDWELL
No. MDTA 36-64
- 3.1.24 Employment Security, Bureau of—
ALFRED L. GREEN
No. 81-09-66-12
- 3.1.25 George Washington University,
The—
REGIS H. WALTHER and MAR-
GARET L. MAGNUSSON
No. 81-09-66-19
- 3.1.26 Georgia Institute of Technology—
JOHN L. FULMER, ROBERT E.
GREEN and PAUL B. HAN
No. MDTA 19-63
- 3.1.27 Greenleigh Associates, Inc.—
ARTHUR GREENLEIGH
No. 81-34-66-33
- 3.1.28 Harvard University—
JAMES G. SGOVILLE
No. MDTA 29-64
- 3.1.29 Harvard University—
PETER B. DOERING and
MICHAEL J. PIRE
No. MDTA 38-64
- 3.1.30 Houston, University of—
E. E. LIEBHAFSKY
No. 81-42-04
- A Method of Measuring Short-Term Im-
pacts of Technological Change on Employ-
ment and Occupations—As Tested in
Selected Power Laundries
- Manpower and the Public Employment
Service in Europe—A Study of Programs
and Operations
- A Retrospective Study of the Effectiveness
of Out-of-School Neighborhood Youth
Corps Programs in Four Urban Sites
- Research Design to Forecast Demand for
New Types of Technicians in an Industry
- A Study: Those Not Working in a Tight
Labor Market—Milwaukee, Wis.
- The Job Content of the U.S. Economy,
1940-1970
- Internal Labor Markets, Technological
Change, and Labor Force Adjustment
- An Analysis of Forces Underlying Decisions
of Potential Workers to Refrain from Labor
Force Participation
- CFSTI-PB 170177 (full report); MA—
Manpower/Automation Research Notice,
1966 (digest).
- CFSTI-PB 177410.
- CFSTI-PB 177132.
- CFSTI-AD 602431.
- CFSTI-PB 177431; ERIC-ED 015305
(\$6.08; Mf 75 cents).
- McGraw-Hill Book Co., New York (in
press for 1969 publication). (\$9.95).
- CFSTI-PB 174614.
- CFSTI-PB 177430.

3.1 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Contracts—Continued

Source of Copies
(See abbreviations key and explanation, p. 144)

<i>Contractor, Investigator(s), and Contract No.</i>	<i>Title of Report</i>	
3.1.31 Human Sciences Research, Inc.— SIDNEY A. FINE No. OAM 3-63	The Nature of Automated Jobs and Their Educational and Training Requirements	CFSTI-PB 173177.
3.1.32 International Labour Office No. OAM 5-63B	(1) Social Aspects of Automation: A Bibliog- raphy of Material Available in the Inter- national Labour Office	CFSTI-PB 177547.
	(2) Abstracts of Articles on the Social Aspects of Automation: A Collection Based on Selected Literature Published in Leading Industrialized Countries	CFSTI-PB 177549.
	(3) A Review of Recent Soviet Literature on the Social Aspects of Automation and Technical Change in the U.S.S.R.	CFSTI-PB 177548.
	(4) Health and Safety Aspects of Auto- mation and Technological Change—A Collection of Abstracts, 1956 to 1962	MA-1964.
3.1.33 International Labour Office— JACQUES MONET and KARL H. EBEL No. OAM 5-63C	European Apprenticeship	ILO, Geneva, 1966, CIRF Monographs, Vol. 1, No. 2 (\$4); CFSTI-PB 177294.
3.1.34 International Labour Office— SVEN GRABE No. OAM 5-63D	Training of Maintenance Workers	CFSTI-PB 176741.
3.1.35 International Labour Office— F. SELLIER and C. ZARKA No. OAM 5-63F	International Differences in Factors Affecting Labor Mobility	CFSTI-PB 177295; ERIC-ED 016087 (\$11.44; Mf \$1.25).
3.1.36 International Labour Office— N. FRANKLIN No. OAM 5-63G	Redundancy Procedures in Selected Western European Countries	CFSTI-PB 176082.

- 3.1.37 Labor Statistics, Bureau of—
JOSEPH BLOCH
No. MDTA 1-63A
The Operation of Severance Pay Plans
and Their Implications for Labor Mobility
GPO-BLS Bulletin 1462, 1966 (60 cents).
- 3.1.38 Labor Statistics, Bureau of—
DONALD LANDAY
No. MDTA 1-63B
Labor Mobility and Private Pension
Plans—A Study of Vesting, Early Re-
tirement, and Portability Provisions
GPO-BLS Bulletin 1407, 1964 (45 cents).
- 3.1.39 Labor Statistics, Bureau of—
SOPHIA COOPER
No. MDTA 7-63
Formal Occupational Training of Adult
Workers: Its Extent, Nature, and Use
MA—Manpower/Automation Research
Monograph No. 2, 1964.
- 3.1.40 Labor Statistics, Bureau of—
DONALD LANDAY
No. MDTA 24-64
Health Insurance Coverage for Workers
on Layoff
MA—Reprint from *Monthly Labor Review*,
August 1966; ERIC-ED 016140 (28 cents;
Mf 25 cents).
- 3.1.41 Labor Statistics, Bureau of—
CARL ROSENFELD
No. 81-09-66-07
A Survey of Volunteer Work, November
1965
CFSTI-PB 178338 (full report); MA—
Manpower/Automation Research Mono-
graph, forthcoming (summary with supple-
mentary data).
- 3.1.42 Labor Statistics, Bureau of—
EDGAR WEINBERG
No. 81-09-66-08
Job Redesign for Older Workers—10 Case
Studies
GPO-BLS Bulletin 1523, 1967 (40 cents;
full report); MA—"Job Redesign for Older
Workers: Case Studies," reprint from
Monthly Labor Review, January 1967 (sum-
mary); Manpower/Automation Research
Notice, 1967 (digest).
- 3.1.43 Labor Statistics, Bureau of—
HARVEY HILASKI
No. 81-09-66-15
Labor Standards and Job Training in
Foreign Countries
MA—Reprint from *Monthly Labor Review*,
September 1967.
- 3.1.44 Labor Statistics, Bureau of—
WILLIAM MILLIGAN
No. 81-09-67-10
Survey of Employment and Unemploy-
ment in Slum Areas
GPO—"Joblessness and Poverty in Urban
Slums," *Manpower Report of the President*
. . . April 1967, pp. 73-100 (\$1.50); MA—
*A Sharper Look at Unemployment in U.S.
Cities and Slums*, A Summary Report sub-
mitted to the President by the Secretary of
Labor, 1967.

3.1 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Contracts—Continued

<i>Contractor, Investigator(s), and Contract No.</i>	<i>Title of Report</i>	<i>Source of Copies (See abbreviations key and explanation, p. 144)</i>
3.1.45 LEBERGOTT, STANLEY No. MDTA 33-64	Methods of Forecasting Short-Term Unemployment Change	CFSTI-AD 608771.
3.1.46 Michigan State University— SIGMUND NOSOW No. MDTA 9-63	Retraining Under the Manpower Development and Training Act: A Study of Attributes of Trainees Associated with Successful Retraining	CFSTI-PB 177870 (first of two reports; second forthcoming).
3.1.47 Michigan, The University of— DOROTHY H. COONS No. MDTA 4-64	Report of Study Tour of European Industrial Therapy Programs	CFSTI-AD 603646.
3.1.48 Michigan, The University of— LOUIS A. FERMAN No. MDTA 7-64	The Negro and Equal Employment Opportunities: A Review of Management Experiences in Twenty Companies	CFSTI-PB 176721 (full report); ERIC-ED 015308 (\$8.16; Mf \$1, full report); MA—Manpower/Automation Research Monograph, 1968 (summary).
3.1.49 Minnesota, University of— ELLIOT ARONSON No. MDTA 44-64	Unemployment and Retraining: An Annotated Bibliography of Research	MA—1965.
3.1.50 Minnesota, University of— HOWARD E. BERGSTROM No. 81-22-30	Job Performance of Young Workers in Relation to School Background—A Pilot Approach Toward Using the Job Environment in Evaluating Both General and Vocational Education	CFSTI-PB 177419; ERIC-ED 015231 (\$8.76; Mf \$1).
3.1.51 Missouri, University of— JOHN F. MCGOWAN No. 81-24-16	Counselor Development in American Society—Conference Recommendations from Invitational Conference on Government-University Relations in the Professional Preparation and Employment of Counselors (Washington, D.C., June 2 and 3, 1965)	CFSTI-PB 177413; ERIC-ED 016136 (\$12.88; Mf \$1.25).

- 3.1.52 Missouri, University of—
H. H. LONDON
No. 81-24-25
- How Fare MDTA Ex-Trainees: An Eighteen-Month Followup Study of 500 Such Persons
- CFSTI-PB 177626.
- 3.1.53 National Bureau of Economic Research—
RICHARD A. EASTERLIN
No. MDTA 20-63
- Labor Force Trends and Projections in the United States
- Columbia University Press, New York (in press); *The American Economic Review*, December 1966, "Economic-Demographic Interactions and Long Swings in Economic Growth," pp. 1063-1104 (selective summary).
- 3.1.54 National Bureau of Economic Research—
GEOFFREY H. MOORE
No. MDTA 31-64
- Measurement and Interpretation of Job Vacancies—A Conference Report of the National Bureau of Economic Research
- Columbia University Press, New York, 1966 (\$12.50).
- 3.1.55 National Committee for Children and Youth—
RUTH COWAN NASH, ED.
- (1) Rural Youth in a Changing Environment, Report of the National Conference Sponsored by the National Committee for Children and Youth at Oklahoma State University, Stillwater, September 22-25, 1963
- CFSTI-PB 177411.
- LEE D. BURCHINAL, ED.
(Office of Juvenile Delinquency and Youth Development, U.S. Department of Health, Education, and Welfare).
No. MDTA 15-63
- (2) Rural Youth in Crisis: Facts, Myths, and Social Change (Background papers for the conference)
- GPO-1965 (\$1.25).
- 3.1.56 National Education Association—
VINCE M. ROGERS
No. MDTA 34-64
- Adapting Educational Change to Manpower Needs in Quincy, Mass., and Wood County (Parkersburg), W. Va.
- CFSTI-PB 177421 (full report); ERIC-ED 015268 (\$3.88; Mf 50 cents, full report); *The American School Board Journal*, December 1967, "Modernizing Vocational-Technical Programs" (summary).

3.1 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Contracts—Continued

<i>Contractor, Investigator(s), and Contract No.</i>		<i>Title of Report</i>		<i>Source of Copies (See abbreviations key and explanation, p. 144)</i>	
3.1.57	National Educational Television and Radio Center— HENRY C. ALTER No. 81-34-66-28	Choice: Challenge for Modern Women (Series of 12 half-hour films of panel discussions)		N.E.T., 10 Columbus Circle, New York, N.Y. 10019.	
3.1.58	National Manpower Policy Task Force— GARY B. HANSEN No. 81-09-66-31	Britain's Industrial Training Act; Its History, Development, and Implications for America		CFSTI-PB 177145; The Task Force, 818 18th St., NW., Washington, D.C. 20006. (\$1.25).	
3.1.59	National Opinion Research Center— Rev. JOSEPH H. FICHTER, S.J. No. MDTA 22-64	Graduates of Predominantly Negro Colleges, Class of 1964		GPO—Public Health Service Publication No. 1571, 1967 (75 cents).	
3.1.60	National Planning Association— LEONARD A. LECHT No. 81-08-20	Manpower Requirements for National Objectives in the 1970's		CFSTI-PB 177821 (full report); Frederick A. Praeger, Publishers, New York (\$6.95, book based on study in press for 1969 publication).	
3.1.61	New York University— BRUNO STEIN and CHO-KIN LEUNG No. 81-31-19	Local Manpower Data Programs: An Analysis		CFSTI-PB 177329; ERIC-ED 015334 (\$6.24; Mf 75 cents).	
3.1.62	North Carolina State University, Raleigh— ADGER B. CARROLL and LOREN A. IHENEN No. 81-32-11	Costs and Returns of Technical Education: A Pilot Study		CFSTI-PB 178387 (full report); ERIC-ED 015247 (\$2.36; Mf 25 cents, full report); MA—Manpower/Automation Research Notice, 1966 (digest).	
3.1.63	North Carolina, University of— DAVID BROWN No. MDTA 25-64	Placement Services for College Teachers (Vol. I); Academic Labor Markets (Vol. II)		ERIC-ED 016135 (Vol. I, \$10; Mf \$1. Vol. II, \$15.80; Mf \$1.50); American Council on Education, 1785 Massachusetts Ave., NW., Washington, D.C. 20036, <i>The Mobile Professors</i> , 1967 (book based on both volumes, \$6).	

- 3.1.64 North Star Research and Development Institute—
GUY H. MILES
No. 81-22-35
- 3.1.65 Northeastern University—
DEAN S. AMMER
No. MDTA 21-64
- 3.1.66 Northern Michigan University—
KENNETH L. PARKHURST
No. MDTA 16-64
- 3.1.67 Oklahoma State University of Agricultural and Applied Science,
Research Foundation—
ROBERT L. SANDMEYER and
LARKIN B. WARNER
No. 81-38-66-20
- 3.1.68 Pennsylvania State University,
The—
CHARLES OEWEILL and LOUIS
LEVINE
No. 81-40-67-21
- 3.1.69 Philco-Ford Corporation—
ALBERT B. CHALUPSKY and
THOMAS J. KOPF
No. 81-05-67-06
- 3.1.70 PIERSON, FRANK C.
No. 81-40-66-24
- Final Report on Preliminary Phase: Effects of Vocational Training and Other Factors on Employment Experience
CFSTI-PB 177401.
- Mechanization and Manpower in Gray-Iron Foundries—A Study of the Impact of Technological Change on Employment in an Industry Where Widely Varying Levels of Technology Coexist
CFSTI-PB 177349 (full report); MA—Manpower/Automation Research Notice, 1966 (digest).
- Manpower Problems and Economic Opportunities in an Adjusting Regional Economy: The Upper Peninsula of Michigan
CFSTI-PB 177188.
- The Determinants of Labor Force Participation Rates, With Special Reference to the Ozark Low-Income Area
CFSTI-PB 178390.
- Pilot University Research Consultation Conference—A Report on a Workshop on Manpower Research
CFSTI-PB 177403.
- Job Performance Aids and Their Impact on Manpower Utilization
CFSTI-PB 177330; ERIC-ED 015316 (\$4.44; Mf 50 cents).
- Professional and Supporting Personnel
GPO—*Manpower Report of the President* . . . April 1967, pp. 165-193 (\$1.50).

3.1 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Contracts—Continued

Source of Copies
(See abbreviations key and explanation, p. 144)

Contractor, Investigator(s), and Contract No.	Title of Report	
3.1.71 The President's Task Force on Manpower Conservation No. 81-08-13	One-Third of a Nation: A Report on Young Men Found Unqualified for Military Service	GPO—1964 (55 cents).
3.1.72 Research Triangle Institute— A. M. HUQ ET AL. No. 81-32-31	An Intensive Investigation of the Problems Associated With Young Men Who Are Mentally Unqualified for Military Service	CFSTI-PB 176086; ERIC-ED 015330 (\$6.96; Mf 75 cents).
3.1.73 Rutgers—The State University— JACK CHERNICK and BERNARD P. INDIK No. MDTA 39-64	(1) The Selection of Trainees Under MDTA (2) The Motivation to Work (a special supplement)	ERIC-ED 015255 (\$5.32; Mf 75 cents).
3.1.74 San Jose State College— R. P. LOOMBA No. 81-04-27	A Study of the Reemployment and Unemployment Experiences of Scientists and Engineers Laid Off From 62 Aerospace and Electronics Firms in the San Francisco Bay Area During 1963-65	CFSTI-PB 177350; ERIC-ED 016103 (\$8; Mf \$1).
3.1.75 South Bend Community School Corp.— NATHANIEL J. PALLONE No. MDTA 11-64	No Longer Superfluous: The Educational Rehabilitation of the Hard-Core Unemployed	CFSTI-PB 177420 (full report); ERIC-ED 015328 (\$2.72; Mf 50 cents, full report); MA—Manpower/Automation Research Notice, 1966 (digest).
3.1.76 Stanford Research Institute— RICHARD S. ROBERTS, JR. No. OAM 4-63	Management Decisions to Automate	CFSTI-AD 603194 (full report); MA—same title, Manpower/Automation Research Monograph No. 3, 1965 (summary).
3.1.77 Stanford Research Institute— HARRY V. KINCAID No. MDTA 12-64	The Scope of Industrial Training in Selected Skilled and Technical Occupations	CFSTI-PB 177762.
3.1.78 Stanford Research Institute— GERTRUDE D. PETERSON No. 81-04-15	An Evaluation of the Concept of Trainee Camps for Unemployed Youth	CFSTI-PB 177326 (full report); MA—Oak Glen—A Training Camp for Unemployed Youth, Manpower/Automation Research Monograph No. 5, 1965 (summary); ERIC-ED 015321 (\$2.92; Mf 50 cents, monograph only).

- 3.1.79 Stanford Research Institute—
HARRY V. KINCAID and PHYL-
LIS D. HAMILTON
No. 81-04-29
Impacts of Technological Changes in Ware-
housing
CFSTI-PB 177351; ERIC-ED 016141
(\$1.52; Mf 25 cents).
- 3.1.80 Staten Island Mental Health Soci-
ety, Inc.—
CLYDE E. SULLIVAN and WAL-
LACE MANDELL
No. MDTA 18-64
Restoration of Youth Through Training
CFSTI-PB 175609 (full report); ERIC-ED
016138 (\$16.44; Mf \$1.75, full report);
MA—Manpower/Automation Research No-
tice, 1967 (digest).
- 3.1.81 Temple University—
LOUIS T. HARMS
No. MDTA 41-64
Projective Models of Employment by In-
dustry and by Occupation for Small Areas:
A Case Study
CFSTI-PB 177414.
- 3.1.82 Temple University—
HERMAN NIEBUHR
No. 81-37-03
The Dialect Remediation Project
CFSTI-PB 177869.
- 3.1.83 Texas, The University of—
F. RAY MARSHALL and VERNON
M. BRIGGS, Jr.
No. 81-46-66-01
Negro Participation in Apprenticeship Pro-
grams
CFSTI-PB 177568 (original report); ERIC-
ED 015327 (\$20.20; Mf \$2, original re-
port); The Johns Hopkins Press, Balti-
more, *The Negro and Apprenticeship* (book
based on study, 1967, \$8); MA—*Negroes
in Apprenticeship*, Manpower/Automation
Research Monograph No. 6, 1967 (sum-
mary).
- 3.1.84 Tuskegee Institute—
No. MDTA 19-64
Enhancing the Occupational Outlook and
Aspirations of Southern Secondary Youth—
A Conference of Secondary School Princi-
pals and Counselors (May 8-9, 1964)
CFSTI-PB 177438; ERIC-ED 015250
(\$9.20; Mf \$1).
- 3.1.85 Upjohn Institute for Employment
Research, The W. E.—
HAROLD L. SHEPPARD and
A. HARVEY BELITSKY
No. MDTA 6-64
The Job Hunt: Jobseeking Behavior of Un-
employed Workers in a Local Economy
The Johns Hopkins Press, Baltimore (book
based on study, 1966, \$7.95); The Insti-
tute, Kalamazoo, Mich., *Promoting Job-
finding Success for the Unemployed*, 1968
(summary); MA—Manpower/Automation
Research Notice, 1966 (digest).

3.1 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Contracts—Continued

<i>Contractor, Investigator(s), and Contract No.</i>	<i>Title of Report</i>	<i>Source of Copies (See abbreviations key and explanation, p. 144)</i>
3.1.86 U.S. Industries, Inc.— RICHARD E. WALTHER and LEIGH H. FERGUSON No. MDTA 35-64	A Pilot Study of the Use of Area of Interest Self-Instructional Reading Courses Among Young Persons Considered To Be Neither Self-Motivated nor Self-Supporting	CFSTI-PB 177402.
3.1.87 Virginia State College, Norfolk— WILLIAM F. BRAZZIEL No. MDTA 12-63	Factors in Workers' Decisions To Forego Retraining Under the Manpower Development and Training Act	CFSTI-AD 603410 (full report); MA—Manpower/Automation Research Notice, 1964 (digest).
3.1.88 Vocational Guidance and Rehabilitation Services— ROBERT P. OVERS No. 81-34-02	(1) Abstracts of Sociological Literature on Occupations (2) Sociological Studies of Occupations: A Bibliography	Curative Workshop of Milwaukee, 750 N. 18th St., Milwaukee, Wis. 53233, <i>Abstracts of 100 Sociological Studies of Occupations</i> , rev. ed., 1968, \$8.00 per set; MA-1965. ERIC-ED 015333 (\$3.72; Mf 50 cents, bibliography only).
3.1.89 Wisconsin, University of— JAMES L. STERN and DAVID B. JOHNSON No. MDTA 14-63	Blue- to White-Collar Job Mobility	CFSTI-PB 177360 (full report); MA—Manpower/Automation Research Notice, 1968 (digest).
3.1.90 Wisconsin, University of— G. SOUNDARA RAJAN No. 81-04-06	A Study of the Registered Apprenticeship Program in Wisconsin	CFSTI-PB 177422; Industrial Relations Research Institute, University of Wisconsin, Madison, 1966 (\$2).
3.1.91 Wisconsin, University of— GERALD G. SOMERS No. 81-53-67-03	Research in Apprenticeship Training, Proceedings of a Conference, September 8-9, 1966 and Essays on Apprenticeship, a companion volume	CFSTI-PB 177371; Center for Studies in Vocational and Technical Education, University of Wisconsin, Madison, 1967 (\$3).
3.1.92 Wisconsin, University of— GERALD G. SOMERS No. 81-53-67-12	The Education and Training of Racial Minorities, Proceedings of a Conference, May 11 and 12, 1967	CFSTI-PB 178440; Center for Studies in Vocational and Technical Education, University of Wisconsin, Madison, 1968 (\$3 plus postage).

3.1.93 Women's Bureau—
MARY HILTON
No. 81-08-10

GPO—1966 (30 cents).

**New Approaches to Counseling Girls in the
1960's—A Report of the Midwest Regional
Pilot Conference Held at University of
Chicago Center for Continuing Education,
February 26-27, 1965**

3.1.94 Women's Bureau—
MARY DUBLIN KEYSERLING
No. 81-09-66-09

GPO—1966 (35 cents).

**Counseling Girls Toward New Perspec-
tives: A Report of the Middle Atlantic
Regional Pilot Conference Held in Phila-
delphia, Pa., December 2-4, 1965**

3.2 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Grants

<i>Institution, Investigator(s), and Grant No.</i>	<i>Title of Report</i>	<i>Source of Copies (See abbreviations key and explanation, p. 144)</i>
3.2.01 American University, The— CHARLES A. DAILEY No. 91-09-66-25	Project Gatekeeper: The Reduction of Job Discrimination by the Use of Self-Confrontation and Feedback to the Discriminator	CFSTI-PB 177352; ERIC-ED 016137 (\$5.32; Mf 75 cents).
3.2.02 Arizona State University— JAMES LESLIE HODGE No. 91-03-68-40—Ph. D.	Cooperative Office Education and Its Effects on Attitudes Toward Office Employment	CFSTI-PB 178417.
3.2.03 Arizona, University of— TREVOR BAIN No. 91-03-66-39	The Impact of Defense Contract Termination on the Labor Force	CFSTI-PB 177873; University of Arizona, Division of Economics and Business Research, Tucson, <i>Defense Manpower and Contract Termination</i> , 1968 (\$1).
3.2.04 Bureau of Social Science Research, Inc.— LAURE M. SHARP No. 91-09-66-07	Occupational Adjustment of Recent Low-Income Southern In-Migrants to a Northern City	
3.2.05 Bureau of Social Science Research, Inc.— LEONARD H. GOODMAN and LOUISE JOHNSON No. 91-09-66-33	Enrollment, Termination, and Program Outcomes of Neighborhood Youth Corps Youth as Related to Their Economic Needs—A Planning Study	

3.2.06 Columbia University—
HIRSCH SAMUEL RUCHLIN
Nos. 91-34-66-58 and 91-34-67-27—
Ph. D.

Manpower Resources of the U.S. Maritime
Industry: A Definitional and Descriptive
Analysis of the Maritime Labor Force

CFSTI-PB 178727.

3.2.07 Cornell University—
LEONARD P. ADAMS
No. 91-34-66-41

Case Studies of Viable Worker Manage-
ment Relationships on Farms in New York
State

Cornell University, Agriculture Experiment
Station, Ithaca, Bulletin 1019.

3.2.08 Cornell University—
ROBERT BROOKS RICHARDSON
No. 91-34-66-47—Ph. D.

An Examination of the Transferability of
Certain Military Skills and Experience to
Civilian Occupations

CFSTI-PB 177372 (full report); MA—
*Transferring Military Experience to Civilian
Jobs—A Study of Selected Air Force Vet-
erans*, Manpower Research Monograph No.
8, 1968 (summary).

3.2.09 Cornell University—
WILLIAM H. FRIEDLAND
No. 91-34-66-49

Migrant Labor as a Form of Intermittent
Social Organization and as a Channel of
Geographical Mobility

CFSTI-PB 177867 (full report); *ILR Re-
search*, Vol. xiii, No. 2, 1967, "Migrant
Labor: A Form of Intermittent Social
Organization" (summary).

3.2.10 Dillard University—
DANIEL C. THOMPSON
No. 91-17-02

An Investigation of the Utilization of the
Manpower Skills of the 1964 Graduating
Class of Dillard University

CFSTI-PB 177871.

3.2.11 Educational Testing Service—
BENJAMIN SHIMBERG and JOHN
V. MOE
No. 91-32-68-18

A Pilot Study To Determine the Feasibility
of Investigating Nationally the Impact of
Licensing Practices on the Availability
and Mobility of Nonprofessional Man-
power in Occupations Where Skill Short-
ages Exist

CFSTI-PB 178306.

3.2.12 George Washington University,
The—
JOHN HERBERT NORTON
No. 91-09-66-23

Accuracy Analysis for Projections of
Manpower in Metropolitan Areas

3.2 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Grants—Continued

Institution, Investigator(s), and Grant No.	Title of Report	Source of Copies (See abbreviations key and explanation, p. 144)
3.2.13 Georgia, University of— ETHEL B. JONES No. 91-11-66-46	A Feasibility Study To Identify the Underemployed and To Examine the Labor Market Attachment of Labor Force Non-participants in a Low-Income Area	CFSTI-PB 177559.
3.2.14 Grambling College— CHARLES A. BERRY, Jr. No. 91-17-03	An Investigation of the Utilization of the Manpower Skills of the 1964 Graduating Class of Grambling College	CFSTI-PB 177560.
3.2.15 Harvard University— RICHARD B. FREEMAN No. 91-23-66-15—Ph. D.	The Labor Market for College Manpower	CFSTI-PB 178704 (Chapters 1-4). CFSTI-PB 178705 (Chapters 5-9).
3.2.16 Harvard University— DANIEL QUINN MILLS No. 91-23-67-08—Ph. D.	Factors Determining Patterns of Employment and Unemployment in the Construction Industry of the United States	CFSTI-PB 177562 (full report); <i>Monthly Labor Review</i> , April 1968, pp. 30-33 (excerpts).
3.2.17 Illinois, University of— ADOLF STURMTHAL No. 91-15-66-29	A Study of Methods for Forecasting Employment	CFSTI-PB 178008.
3.2.18 Maryland, University of— PAUL WASSERMAN and MARY LEE BUNDY No. 91-22-66-08	Manpower Utilization and Requirements in Library and Information Sciences	<i>Library Journal</i> , January 15, 1967, "Manpower Blueprint," <i>Pacific Northwest Library Association Quarterly</i> , January 1967, "The Library and Information in a Time of Change."
3.2.19 Maryland, University of— JOHN W. WYSONG No. 91-22-68-02	(1) Private and Public Farm Manpower Policy Implications of the Dairy Farm Labor Resource Adjustment Process (2) Factors Affecting Labor Use and Worker Productivity on Efficient Dairy Farms (3) Labor Productivity and Labor Force Characteristics of Selected Types of Commercial Farms	CFSTI-PB 178775, 178776, 178777; University of Maryland, Department of Agricultural Economics, Ag. Econ. Mimeo Series Nos. 23, 27, 28.

- | | | | |
|--------|---|---|--|
| 3.2.20 | Massachusetts Institute of Technology—
ROBERT EVANS, JR., and
GEORGE E. DELEHANTY
No. 91-20-06 | Low-Wage Employment: An Inventory and Assessment | CFSTI-PB 177554. |
| 3.2.21 | Massachusetts Institute of Technology—
MALCOLM S. COHEN
No. 91-23-66-36—Ph. D. | The Determinants of the Relative Supply and Demand for Unskilled Workers
Statistical Appendix | CFSTI-PB 177555 (full report); <i>Monthly Labor Review</i> , August 1967, pp. 8-11, "Variability by Skill in Cyclical Unemployment" (summary). |
| 3.2.22 | Massachusetts Institute of Technology—
FRAZIER KELLOGG
No. 91-23-67-11 | Computer-Based Job Matching Systems: An Exploration of the State of the Art and the Proposed Nationwide Matching System | CFSTI-PB 177563. |
| 3.2.23 | Michigan State University—
JAMES RIDDLE HUNDLEY, JR.
No. 91-24-66-42 | A Study of Interpersonal Relations Among Managers and Employees of Fruit and Vegetable Farms With Emphasis on Labor-Management Practices Utilized | CFSTI-PB 178536. |
| 3.2.24 | Michigan State University—
JOAN RYTINA
No. 91-24-66-45—Ph. D. | The Ideology of American Stratification | CFSTI-PB 178305. |
| 3.2.25 | Michigan State University—
JON M. SHEPARD
No. 91-24-67-03—Ph. D. | Man-Machine Relationships, Attitudes Toward Work and Meanings in the Work Role | CFSTI-PB 178467. |
| 3.2.26 | Michigan, The University of—
EVA MUELLER
No. 91-21-05 | Pilot Study of the Impact of Changes in Machine Technology on a Cross Section of the Labor Force | |
| 3.2.27 | Michigan, The University of—
DAWN DAY WACHTEL
No. 91-24-67-05 | The Working Poor | CFSTI-PB 178189. |

3.2 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Grants—Continued

Source of Copies
(See abbreviations key and explanation, p. 144)

Institution, Investigator(s), and Grant No.

Title of Report

- | | | |
|--|---|--|
| 3.2.28 Michigan, The University of—
JEFFRY PIKER
No. 91-24-67-24 | Entry Into the Labor Force: A Survey of Literature on the Experiences of Negro and White Youths | CFSTI-PB 177564 (full report); <i>Employment Service Review</i> , January-February 1968 (summary). |
| 3.2.29 Minnesota, University of—
EDWARD GROSS
No. 91-25-67-12 | Report on Problems of Counseling Special Populations Pursuant to Government Manpower Programs | CFSTI-PB 177868. |
| 3.2.30 Missouri, University of—
REX R. CAMPBELL and SUSAN E. MULVEY
No. 91-27-66-02 | Perception of Job Opportunities Among Low Income Groups in Missouri | CFSTI-PB 177556; ERIC-ED 015332. |
| 3.2.31 National Opinion Research Center—
RICHARD JAFFE, CAROLYN F. HUSON, and MICHAEL E. SCHILTZ
No. 91-15-66-01 | College, Color, and Employment—Racial Differentials in Postgraduate Employment Among 1964 Graduates of Louisiana Colleges | CFSTI-PB 178416. |
| 3.2.32 New York University—
ABRAHAM L. GITLOW
No. 91-34-66-57 | Conference on Unskilled Workers in the Labor Force: Problems and Proposals | CFSTI-PB 177865. |
| 3.2.33 New York University—
JEANNE L. NOBLE
No. 91-34-67-06 | An Exploratory Study of Domestic's View of Their Working World (An Inquiry Into the Methodology of a Research Design Formulated To Gather Information for a More Extensive Investigation) | |
| 3.2.34 Oakland Small Business Development Center, Inc.—
JACK BROWN
No. 91-05-67-29 | A Study of the Manpower Implications of Small Business Financing—A Survey of 149 Minority and 202 Anglo-Owned Small Businesses in Oakland, Calif. | |

- 317-281 O-68-10
- 3.2.35 Ohio State University Research Foundation, The—
LEONARD EMIL KREIDER
No. 91-37-66-13—Ph. D.
- 3.2.36 Oklahoma State University of Agricultural and Applied Science, Research Foundation—
GAYLEN R. WALLACE
No. 91-38-66-12—Ph. D.
- 3.2.37 Oklahoma State University of Agricultural and Applied Science, Research Foundation—
GERALD EUGENE BOGGS
No. 91-38-66-50—Ph. D.
- 3.2.38 Oklahoma State University of Agricultural and Applied Science, Research Foundation—
PAUL ROUNTREE BLUME
No. 91-38-67-14—Ph. D.
- 3.2.39 Pennsylvania, University of—
ANN R. MILLER
No. 91-40-67-02
- 3.2.40 Purdue Research Foundation—
CAROLYN CUMMINGS PERRUCCI
No. 91-16-66-28
- 3.2.41 St. Mary's College—
SVETOZAR PEJOVICH and WILLIAM SULLIVAN
No. 91-25-66-04
- The Development and Utilization of Managerial Talent: A Case Study of Manufacturing Managers in Columbus, Ohio
CFSTI-PB 178351.
- An Analysis of Job Satisfaction of Employed Youth Involved in an Experimental School Dropout Rehabilitation Program
CFSTI-PB 177546.
- A Comparative Analysis of the Impact of Various Types of Curricula on the Vocational Success of School Dropouts
CFSTI-PB 177776.
- An Evaluation of Institutional Vocational Training Received by American Indians Through the Muskogee, Oklahoma Area Office of the Bureau of Indian Affairs
CFSTI-PB 178532.
- Current Occupation and Past Training of Adult Workers
CFSTI-PB 177866.
- Engineers and Scientists: A Comparative Analysis of Professional Values and Behavior
CFSTI-PB 178388.
- The Role of Technical Schools in Improving the Skills and Earning Capacity of Rural Manpower: A Case Study
CFSTI-PB 177780; ERIC-ED 015329 (\$1.04; Mf 25 cents).

3.2 LIST OF REPORTS COMPLETED, FISCAL YEARS 1963-68—Grants—Continued

Source of Copies
(See abbreviations key and explanation, p. 144)

<i>Institution, Investigator(s), and Grant No.</i>	<i>Title of Report</i>	
3.2.42 Sam Houston State College— GEORGE G. KILLINGER No. 91-46-66-72	Job Obsolescence in the Law Enforcement and Correctional Field	CFSTI-PB 178234.
3.2.43 South Florida, University of— DALE O. CLONINGER No. 91-10-66-67	A Determination of the Extent of Participa- tion of Significant But Nonpredominant Retiree Concentration in the Local Econ- omy and Labor Force and Their Effect on Employment, Wage Rates, and Income	In Florida's Latent Resource: The Retired— Business and Economic Dimensions, Uni- versity of Florida Press, Gainesville (in press).
3.2.44 Southern University and Agricul- tural and Mechanical College— FREDERICK C. TEMPLE and THOMAS T. WILLIAMS No. 91-17-01	Employment Pattern of Southern Univer- sity Graduates	CFSTI-PB 177872.
3.2.45 Texas Technological College— GARLAND FRANK LAWLIS No. 91-46-67-47—Ph. D.	Motivational Aspects of the Chronically Unemployed	
3.2.46 Vermont, University of— MILTON J. NADWORN No. 91-44-07	Employment Expansion in the Burlington, Vt., Labor Area, 1965	
3.2.47 Washington University— ROBERT ALBERT ULLRICH No. 91-27-67-15—Ph. D.	A Study of the Motivating and Dissatisfying Forces in an Isolated Work Situation	CFSTI-PB 178324.
3.2.48 West Virginia University— ROBERT W. MILLER No. 91-52-66-56	Social Psychological Factors Associated with Responses to Retraining	CFSTI-PB 177864.
3.2.49 Wisconsin, University of— JAMES S. CRABTREE No. 91-53-66-11—Ph. D.	The Structure of Related Instruction in Wisconsin Apprenticeship Programs	CFSTI-PB 177567.

- | | | | |
|--------|---|--|------------------|
| 3.2.50 | Wisconsin, University of—
LEONARD J. HAUSMAN
No. 91-53-66-68—Ph. D. | The 100% Welfare Tax Rate: Its Incidence
and Effects | CFSTI-PB 177566. |
| 3.2.51 | Wisconsin, University of—
ARIE SHIROM
No. 91-53-67-20—Ph. D. | Industrial Cooperation and Adjustment to
Technological Change: A Study of Joint-
Management Union Committees | CFSTI-PB 177565. |
| 3.2.52 | Xavier University—
LOIS G. TAPLIN
No. 91-17-04 | Employment Pattern of Xavier University
Graduates of 1964 | CFSTI-PB 177561. |
| 3.2.53 | Yale University—
DANIEL C. ROGERS
No. 91-07-66-06—Ph. D. | Private Rates of Return to Education in
the United States: A Case Study | CFSTI-PB 177557. |

ABBREVIATIONS KEY AND EXPLANATION

**PLEASE READ CAREFULLY TO AVOID UNNECESSARY DELAYS IN OBTAINING REPORTS.
DO NOT ROUTINELY WRITE TO THE MANPOWER ADMINISTRATION FOR THESE REPORTS.**

Section 3 lists reports on research completed for the Manpower Administration under contracts and grants during fiscal years 1963-68. (A few projects which did not result in formal reports are omitted; for example, machine printouts of special tabulations.)

Since the Manpower Administration's supply of these reports usually permits distribution only on a highly selective basis, arrangements were made during fiscal year 1968 for sale of the reports through two federally operated information storage and retrieval systems. These arrangements, as well as other sources of the reports and related publications, are indicated in the right-hand column of the listing. The key to the abbreviations used there and instructions for obtaining the publications are as follows:

CFSTI—Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. Copies of reports with this symbol may be purchased for \$3 each (paper) or 65 cents (microfiche). Send remittance with order directly to the Clearinghouse and specify the accession number (AD or PB plus a 6-digit number) given in the listing.

ERIC—Educational Resources Information Center, EDRS, c/o NCR Co., 4936 Fairmont Ave., Bethesda, Md. 20014. Copies are priced according to the number of pages. The first price in the listing is for paper; the Mf price is for microfiche. Send remittance with order directly to ERIC-EDRS and specify the accession number (ED plus a 6-digit number) given in the listing.

GPO—Government Printing Office. Send orders directly to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, with remittance for specified amount.

MA—Manpower Administration. Single copies free upon request to U.S. Department of Labor, Manpower Administration, Associate Manpower Administrator, Washington, D.C. 20210.

Other sources are indicated for a few publications. Order from the specified source or, for books, from bookstores.

In addition, reports on contract research projects (the first section of the listing) are available for inspection in the Manpower Administration's Office of Manpower Research or in regional offices of the Bureau of Labor Statistics (BLS) and the Bureau of Employment Security (BES). (See addresses, p. 145.) They may also be inspected at the universities which hold manpower research institutional grants (section 1.2). They *may* also be available at libraries that subscribe to the Documents Expediting Project of the Library of Congress. However, some of these libraries were not subscribers at the time some of the reports were distributed and they are not obliged to retain any reports sent to them since they are not depositories.

Reports on dissertation research grants (included in the second section of the listing) can usually be purchased from University Microfilms, Inc., 300 North Zeeb Road, Ann Arbor, Mich. 48102, but current information on prices is not available. Those for sale by CFSTI are as indicated in the listing.

U.S. Department of Labor Regional Office Depositories

John F. Kennedy Building,
Boston, Mass. 02203
(BES and BLS)

1240 East Ninth Street,
Cleveland, Ohio 44199
(BES and BLS)

19th and Stout Streets,
Denver, Colo. 80202
(BES)

341 Ninth Avenue,
New York, N.Y. 10001
(BES and BLS)

219 South Dearborn Street,
Chicago, Ill. 60604
(BES and BLS)

450 Golden Gate Avenue,
San Francisco, Calif. 94102
(BES and BLS)

Penn Square Building,
1317 Filbert Street,
Philadelphia, Pa. 19107
(BES)

911 Walnut Street,
Kansas City, Mo. 64106
(BES)

506 Second Avenue,
Seattle, Wash. 98104
(BES)

1371 Peachtree Street, NE.,
Atlanta, Ga. 30309
(BES and BLS)

411 North Akard Street,
Dallas, Tex. 75201
(BES)

4. GUIDELINES FOR SUBMISSION OF RESEARCH PROPOSALS

The following guidelines have been revised and supersede any previously issued. It is suggested that applicants study title I of the Manpower Development and Training Act, as amended (see appendix B), and other relevant authorizing legislation before preparing proposals under these guidelines.

146-147

U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION

4.1 GUIDELINES FOR SUBMISSION OF RESEARCH PROPOSALS—Research or Evaluation Contracts

The purpose of this section is to describe guidelines for the submission of proposals for research and evaluation contracts that may be obtained from the Manpower Administration, U.S. Department of Labor.¹

CONTRACTING AUTHORITY

Contracts may be awarded under authority of three legislative acts:

1. Title I of the Manpower Development and Training Act (42 U.S.C. 2571 et seq.), for the conduct of research in the broad areas of manpower resources, employment and unemployment requirements, development, utilization, mobility, and automation and technological change, to provide information which will lead to the development of informed and responsible manpower policies and programs.

2. Title I of the Economic Opportunity Act of 1964 (42 U.S.C. 2740 and 2763), for studies that will provide information which will improve the overall effectiveness of the Neighborhood Youth Corps (part B, section 123(a) (1) and (2)); Operation Mainstream (part B, section 123(a) (3)); New Careers (part B, section 123(a) (4)); Concentrated Employment Program (part B, section 123(a) (5)); or the Special Impact Program (part D).

3. Social Security Act (81 Stat. 888), for studies which will provide information for the improvement of the overall effectiveness of the Work Incentive Programs (title IV, part C, section 441).

Academic institutions, State and local government organizations, and other organizations and individuals from all of the social science disciplines with research capabilities in the manpower area may apply for contracts to conduct research or evaluation.

PRELIMINARY PROPOSAL

The first step in applying for a research or evaluation contract is the submission of a brief statement describing the researcher's basic study ideas. After reviewing this preliminary summary, the Manpower Administration, U.S. Department of Labor, may request a formal research proposal. (Formal proposals should follow the outline described in Outline for Submission of Formal Proposals, pp. 151-154.)

¹ See Title 29, Part 71 of the Code of Federal Regulations, Manpower Research and Evaluation Grants and Contracts. 33 F.R. 7113.

4.1 Guidelines for Research or Evaluation Contracts

The preliminary proposal should be two or three pages in length, and in non-technical language. It should present:

1. The problem to be investigated.
2. Objectives of the study.
3. Research procedures.
4. Time and budget requirements (summary only).

A separate statement concerning staff, facilities, capabilities for research, and previous related research experience should accompany the preliminary proposal. The preliminary proposal and any other related materials should be sent to:

Office of the Associate Manpower Administrator
Manpower Administration
U.S. Department of Labor
Washington, D.C. 20210

SOME INFORMATION ABOUT SUBMISSION AND REVIEW OF FORMAL PROPOSALS

The proposed research should focus on solutions to significant manpower problems. It should seek to develop new knowledge or new applications of existing knowledge which give promise of furthering the objectives of the legislation under which the contract would be authorized.

The end product of the study—its findings and conclusions—should be of broad program interest. Studies may be limited to special areas *only* where they can be shown to provide a basis for generalized conclusions or to have application over a wide area.

Research Capability

The director or principal investigator must either have done successful research on the subject or have clearly demonstrated competence for performing or directing such research. The organization or individual submitting the proposal must have available facilities and staff adequate for carrying out the research.

Economic Efficiency

The probable value of the results of the overall study must justify the total proposed expenditure. The overall cost of the particular approach to solving the problem in the proposed study must be reasonable as compared with the cost of other possible approaches. Projects should not duplicate on-going research, and whenever possible should attempt to build on completed studies.

Review of Proposals

Formal proposals should be submitted in 30 copies, typed or otherwise reproduced on one side only. Generally, they should run about eight to 10 pages in length.

Proposals may be submitted at any time, and will be reviewed as quickly as possible. Acknowledgment of receipt will usually be made within 15 days. Departmental processing, review, and evaluation of comments received usually require 60 days from receipt of proposal.

Notice of approval for negotiation (or disapproval) will be given as soon as possible following review and evaluation. Final approval for contracting will depend on a negotiated agreement on content, structure, and budget of the project by the organization and the Manpower Administration.

Upon completion of a research contract, 225 copies of a final report are required. This report will present and analyze the information secured in the course of the project and, in addition, will include separate chapters covering: (1) A summary, (2) findings and conclusions, (3) implications for manpower program and policy, and (4) implications for further research. The report chapter covering implications of the research for manpower policy and program should contain a separate section suggesting recommendations for the use and application of the findings.

In the case of manpower research contracts, publications derived from research conducted under the contract will acknowledge that the study was supported by the Manpower Administration, U.S. Department of Labor. The Department will have a nonexclusive right to publish and distribute the final report of the research, and to use the findings, including any research designs developed, for any purpose whatsoever.

OUTLINE FOR SUBMISSION OF FORMAL PROPOSALS

There is no printed form to be used. Follow the outline below in describing the proposed project. Identify each section by number and title as indicated in the outline.

1. Cover Sheet. The cover sheet of the proposal must show the following information in the order indicated:

PROPOSAL SUBMITTED TO THE ASSOCIATE MANPOWER ADMINISTRATOR, MANPOWER ADMINISTRATION, U.S. DEPARTMENT OF LABOR, FOR THE CONDUCT OF A RESEARCH PROJECT UNDER THE PROVISIONS OF (appropriate title and act of Congress).

Project title: (Be concise, descriptive, and as specific as possible. Avoid obscure technical terms. Include key words under which project may be indexed.)

Submitted by: (Name of organization, institution, agency, or individual hereinafter referred to as "organization.")

Address: (Of organization.)

Telephone number: (Of organization. Include area code.)

Initiated by: (Full name and position of individual who is initiating project, ordinarily the director or chief investigator.)

Transmitted by: (Full name and position of official who is approving the submission of the proposal. This must be someone with authority to commit the organization to the proposed project. The proposal should be signed by both the initiator and the transmitter on the original or master copy.)

Date: (Date transmitted.)

2. Abstract. On a single, separate page submit a summary of the proposal under two main heads: (a) Objectives, and (b) procedures.

3. Problem. State the problem to be investigated, explaining its importance and significance in relationship to the objective of the relevant authorizing legislation.

4.1 Guidelines for Research or Evaluation Contracts

4. Objectives. Clearly state the hypotheses to be tested or the specific questions to be answered.

5. Relationship to Other Research. Discuss the proposed study in relation to previous or on-going research or evaluation in related areas, and indicate how the proposed study will extend the body of knowledge about these areas. Point out what will be distinctive or different about the proposed study as compared with previous studies, and in what ways it may suggest or lend support to programs for action in the manpower area.

6. Procedure. Describe the research procedure in detail, listing the steps to be followed. Where pertinent, include specific information on each of the following:

a. Research method. What is the method to be employed in the study? Examples: survey method, descriptive-theoretical analysis, participant observation, experimental and control group comparisons, etc.

b. Study subjects. Where there are populations, samples, experimental and control groups, indicate their purpose, origin, composition, size, types of data to be collected on each, sampling plans, etc.

c. Data collection. Describe types of data to be gathered and methods of collection. To the extent feasible, data that are already available or are being collected from other sources must be used. Sources of such data should be indicated. Describe questionnaires, interview guides, tests, and other research instruments to be used.

In studies for which it is determined that the project is subject to the requirements of the Federal Reports Act of 1942, it will be necessary for the researcher to submit copies of questionnaires and survey plans for clearance in advance of their use.

d. Analytic techniques. Indicate statistical or other analytic techniques to be used in testing the hypotheses or achieving the objectives of the study.

e. Phasing. Indicate approximate time schedule for various aspects or phases of the project.

7. Personnel. Give name, title, and a brief statement of the research experience of the principal investigator and other key personnel.

8. Facilities. Indicate special facilities and similar advantages, including research staff resources, available to the organization.

9. Duration. Estimate total time for the project and indicate beginning and ending dates.

10. Other Information. Indicate other pertinent information including the following:

a. Extent of agreed cooperation in the project by agencies whose support is necessary for the successful accomplishment of objectives. Include names and titles of officials of such agencies giving assurance of cooperation. For example, in various types of research projects, cooperation of cognizant organizations concerned with the Neighborhood Youth Corps program, the Concentrated Employment Program, and the State employment security agency may be vital.

b. Amount of financial or other support available for this project from other sources.

- c. Whether this proposal is an extension or an addition to a previous Government-supported project.
- d. Whether financial support for this proposal or a similar one has been requested from any Government or private organization other than the Manpower Administration, U.S. Department of Labor.

11. Budget. Start this section on a new page, identifying it in sequence with previous sections as "11. Budget." The budget will include all estimated costs to be covered by any contract with the Department of Labor.

The cost of performance of a contract includes the costs of necessary direct items of expenditure incurred in the performance of the contract. It should also include an amount for overhead or indirect costs, as appropriate.

Following the categories as shown in the outline below, and rounding all amounts to the nearest dollar, list anticipated requirements for all items of expenditure. If the project is expected to extend beyond 12 months, indicate amount required for each year, and in total.

a. Direct Costs.

(1) Personal services.

(a) Include salaries and wages of all personnel directly attributable to actual performance under this contract, whether on a full- or part-time basis. (List personnel by title, man-months, and dollar amounts.)

(b) Include, in connection with the above, but identify separately, allowances for vacation, holidays, sick leave pay, and any other employee benefits customarily granted.

(2) Consultants. Include allowances for consultants as required.

(3) Materials and supplies. List all materials and supplies which will be directly expended by the contractor in performance of the contract.

(4) Travel. Furnish estimates of the number of trips, method of transportation, and cost of travel. Include the estimated amount for subsistence and daily allowance rates, auto mileage rates, etc., during travel, in accordance with the contractor's established policy.

(5) Communications. Include telephone, telegraph, and postal charges.

(6) Services. Include those not specifically covered under personal services (e.g., interviewer cost, computer cost). When a study involves securing information through Federal agencies (as U.S. Bureau of the Census) or State agencies (as State Employment Services), the cost of such services should be included.

(7) Other. Itemized by category and amount.

b. Indirect Costs or Overhead. Give the basis for the determination of proposed overhead rate and reference to other current Government contracts, if any.

Overhead rates may be fixed during the negotiation of a contract, or may be determined provisionally, with final settlement made at the conclusion of the contract. If an overhead rate has been established by a Government audit agency, identify the cognizant audit agency and contact person, the rate established, the allocation base, and the period for which established.

4.1 Guidelines for Research or Evaluation Contracts

If the division between direct and indirect costs as outlined above differs from the contractor's established accounting system and procedures for allocating such costs, the contractor's system may be followed and the differences will be considered in negotiating an equitable percentage to be applied in the contract. It is most important that all items of cost be readily identifiable regardless of whether they are shown as direct or indirect.

The proposed budget will be reviewed against applicable Federal regulations as part of the initial review. Where changes are necessary for projects which are otherwise approved for negotiation, these changes, as well as decisions concerning the determination of an overhead rate, will be made during the negotiation of the contract.

U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION

4.2 GUIDELINES FOR SUBMISSION OF RESEARCH PROPOSALS—Doctoral Dissertation Grants under the MDTA

Academic institutions offering doctoral degrees in areas of study which relate to the manpower field (such as economics, sociology, psychology, education, and the behavioral sciences generally) may apply for grants to support dissertation research of graduate students who have completed all requirements for the doctoral degree except the doctoral dissertation, or who will have met these requirements before the grant is effective. A separate application must be submitted for each candidate nominated by the university for a grant. Such a grant will be made to the university in the name of the candidate.

GRANT CONDITIONS

The maximum amount of direct costs (see "The Application," paragraph 5.a., p. 158) of any one grant is \$10,000 for a period not to exceed 1 year. For projects scheduled to require more than 1 year, support may be given through renewals of grants for a total of not to exceed 3 years, subject to availability of appropriated funds, receipt of progress reports showing reasonable progress, and requests for such renewals to be submitted not later than 1 month before the expiration of previous grants. The initial grant will indicate the period for which the Department intends to support the project.

The grant may cover the following costs:

1. Support for the doctoral candidate.
 - a. Support will generally be on a stipend basis, determined by the proportion of time spent by the candidate on his dissertation times the following full-time annual stipend rates:

Single individual	\$4,000
Dependent allowances (additional)	
Dependent spouse	500
Dependent children: 1	500
2	800
3 (maximum)	1,100

Under this schedule the maximum annual stipend rate for a married candidate with a dependent spouse and three or more dependent children is \$5,600. The following example illustrates how a stipend may be computed:

A married man with one child who teaches half time and works on his dissertation half time for 9 months of the year, and devotes full time to his dissertation the other 3 months could receive a stipend of \$3,125—three-fourths of the year at half time, \$1,875, plus one-fourth of the year at full time, \$1,250.

4.2 Guidelines for Doctoral Dissertation Grants

- b. A candidate who has been regularly employed in teaching or research activities by the sponsoring university or a related research organization, and for whom the dissertation research requires relief from part or all of his employment, may be supported at his established rate of pay, prorated for the proportion of his time devoted to the dissertation.
- 2. Major direct project costs, such as clerical assistance, necessary travel, computer time and special supplies.
- 3. Indirect costs at a fixed rate not to exceed the established audited rate of the institution. The stipend may not be treated as a personnel cost for the purpose of computing the amount of indirect costs. However, the salary of a candidate employed by the university (as in 1.b. above) will not be considered a stipend.
- 4. Allowance to sponsoring university.
 - a. When the candidate is on a stipend basis, and is not charged tuition or fees, an allowance of \$2,500 will be granted to the university in lieu of tuition, fees, general supplies and other administrative costs for grants of 6-months' to 1-year's duration. For grants of less than 6 months, the allowance will be \$1,250, except that for extensions or renewals of grants beyond the first year, the allowance will be prorated on a monthly basis. In accordance with the requirements of Bureau of the Budget Circular No. A-74 (see below), costs of services of academic and administrative staff, including the candidate's sponsor or thesis advisor, which would normally be covered by tuition and fees of the university, may not be shown as a contribution of the university.
 - b. When the candidate is employed by the university and paid a salary, no allowance will be granted. In such instances, the university may include the salary of the candidate in the base against which indirect costs rates may be applied.

In accordance with the Bureau of the Budget Circular No. A-74, dated December 13, 1965: "Participation in the costs of research supported by Federal grants," the grantee institution must share in the total cost of the project on "more than a token basis."

For applications which are approved, 10 copies of the final report resulting from the research will be required. For projects extending beyond 1 year, each renewal will be considered as a separate grant, and a progress report will be required with the request for renewal.

Any survey plans, surveys, or questionnaires arising from the research under an approved grant will be identified solely as the responsibility of the university or the doctoral candidate, and will in no way be attributed to the Department of Labor.

Publications based on the research conducted under the grant will acknowledge that the research was supported by a grant from the Manpower Administration of the U.S. Department of Labor under the Manpower Development and Training Act of 1962, as amended.

The standard conditions applying to all dissertation grants are appended as Conditions Governing Grants in Support of Doctoral Dissertations at the end of these guidelines. As indicated below, any desired exceptions from these conditions should be stated with the transmittal of the application.

SUBMISSION OF APPLICATIONS

Fifteen copies of each application should be sent by the university to:

Associate Manpower Administrator
Manpower Administration
U.S. Department of Labor
Washington, D.C. 20210

Closing dates for applications are January 1, April 1, July 1, and October 1. Applications will be accepted which are postmarked or delivered on or before each of these dates for work to be conducted or initiated during the 1-year period following the date of the application. However, applications received in MA 1 week or more after a closing date, regardless of postmark, will be considered at the next scheduled closing date. Processing of applications requires approximately 2 months, including evaluation by review panels. Applicants may expect to be notified of action taken about 2 months after the applicable closing date. Applications approved for funding may be activated for work to begin approximately 1 month after notification. A grant approved for a candidate who has not completed all the requirements for the doctoral degree at the date of the application will require notice from the university that all requirements have been met before any payments will be made under the grant.

CRITERIA FOR APPROVAL

All applications are reviewed by a panel of persons from outside the Department with expertise in the manpower field. Only those applications which propose studies which have relevance to the objectives of title I of the Manpower Development and Training Act² are referred to the panel for their consideration and recommendation.

The panel considers all elements of an application in its review, giving primary emphasis to the candidate's ability, originality, and creativity as evidenced by the project proposal. The standing of the candidate and his proposed project relative to other candidates and to the availability of funds for the program determines whether the project will be approved for a grant. Approval may be conditional on acceptance of changes as recommended by the review panel, including substantive and budget revisions.

THE APPLICATION

Applications should contain the information requested below in the order indicated. There is no printed form to be used.

1. The first page should show the following:

PROPOSAL SUBMITTED TO THE ASSOCIATE MANPOWER ADMINISTRATOR, MANPOWER ADMINISTRATION, U.S. DEPARTMENT OF LABOR, FOR A GRANT IN SUPPORT OF A DOCTORAL DISSERTATION UNDER THE PROVISIONS OF TITLE I OF THE MANPOWER DEVELOPMENT AND TRAINING ACT, PUBLIC LAW 87-415, AS AMENDED.

Submitted by: (Legal name of university which will be used if grant is approved, and department sponsoring the candidate.)

Address: (Of university.)

Candidate: (Name, address, and phone number. Candidate should sign original or master copy.)

²It is suggested that applicants study title I of the MDTA of 1962 before preparing proposals under these guidelines. (See p. 183.)

4.2 Guidelines for Doctoral Dissertation Grants

- Project title:* (Concise, descriptive, and as specific as possible.)
- Sponsor:* (Name, position, and phone number of university advisor or sponsor of the candidate. Sponsor should sign original or master copy.)
- Transmitted by:* (Name, position, and phone number of approving official. This should be someone with authority to commit the university, and he should sign the original or master copy. Unless otherwise indicated, all correspondence, including the Notice of Grant if approved, will be addressed to this official.)
- Date:* (Date transmitted.)

2. The background of the candidate. Include statement of education and employment experience, and a list of published work. Indicate if candidate has met all requirements other than the dissertation, and, if not, when these will be met.

3. A statement by the candidate's sponsor in support of the proposal and indicating his evaluation of the interests and potential of the candidate. Where the sponsor is other than the thesis advisor for the candidate, the thesis advisor should also include such a statement.

4. A brief, but reasonably complete, statement of the proposed work prepared by the candidate, and covering:

- a. The problem to be investigated, and its importance and significance.
- b. The objectives of the study, including hypotheses to be tested and specific questions to which answers will be sought.
- c. Procedures to be used. Include, as appropriate, general design, population and sample to be studied, data to be gathered and methods to be used, and methods of analysis to be used.
- d. A time schedule for the project and its major phases. This may extend beyond the 1-year limit on the initial grant as a basis for additional grants.
- e. Where support of other agencies is necessary for the successful completion of the objectives of this study, include a statement of the extent of cooperation already assured by such agencies.

5. A budget statement, in detail for the current year, with tentative totals for additional years, if any. Detailed budgets will be required as part of each renewal application. Items to be shown in detailed budgets are listed below. Dollar amounts are to be listed in two columns: (a) Amounts of funds requested and (b) amounts of the grantee institution's contribution from non-Federal funds.

a. Direct Costs.

- (1) Personal services. Show the portion of the candidate's time to be spent on the project, and the rate of stipend or salary.
 - (I) If a stipend, indicate the basis for the rate used in accordance with schedule of stipends shown earlier in these guidelines.
 - (II) If a salary, indicate the basis for the recommended rate of pay.
- (2) Major materials and special supplies required for the project. Itemize in broad categories and amounts.

- (3) Travel, including subsistence at actual cost but not to exceed that allowable under the customary practice of the grantee. Give detail of travel and subsistence, including types of transportation to be used and rates allowed therefor.
- (4) Communication and services not included elsewhere. Itemize by broad categories and amounts. For computer use, show type, number, cost per hour, etc.
- (5) Other direct costs. Itemize by category and amount. When the candidate is on a salary basis, tuition and fees normally paid to the institution by doctoral candidates working only on their dissertations may be shown as a contribution of the institution in lieu of personal and other services covered by such tuition and fees (as for example, the time spent by the candidate's sponsor supervising the work of the candidate). Such tuition and fees are allowable as part of the grant amount only to the extent that they reflect grantee costs directly attributable to the work of the candidate.

b. Indirect Costs. A fixed rate which does not exceed the grantee institution's established audited rate may be used. Identify the basis for the established rate—the date, audit agency, and reference numbers, if any.

c. Allowance to university. See page 156 above, numbered paragraph 4 for schedule of allowances. Include in amount requested.

6. A statement acknowledging that the Conditions Governing MDTA Grants in Support of Doctoral Dissertations (which follow) have been reviewed and will be accepted if the grant is approved. Any provisions from which the institution desires exception should be clearly indicated and justified.

**CONDITIONS GOVERNING GRANTS IN SUPPORT OF
DOCTORAL DISSERTATIONS (PURSUANT TO
42 U.S. CODE 2572)**

The grant is subject to the conditions listed below and any special conditions which may be attached.¹

1. APPLICABILITY OF CONDITIONS

These conditions will be applicable to the grantee, the doctoral candidate, and to any agency or organization which, pursuant to an agreement with the grantee, undertakes responsibility for any part of the approved dissertation research project (hereinafter called "project").

2. AMOUNT OF GRANT

The amount of the Federal grant shall not exceed the smaller of (1) the dollar amount shown in the notice of grant award or (2) the amount of cash expenditures made by the grantee for project purposes during the grant period. For this purpose, the amount of cash expenditures shall include only expenses which are chargeable to the budget of the grantee and which are allowable costs under the applicable provisions of 1-15.3 of the Federal Procurement Regulations (41 CFR 1-15.3).

3. PAYMENTS

The Government will advance an amount equal to 90 percent of the total amount of the grant. Within 90 days after the work under the grant has been completed, grantee shall submit a final fiscal report accounting for all expenditures under the grant. Upon acceptance by the Manpower Administration (MA) of this report, together with all reports required by these conditions, the Government will make final payment.

4. USE OF GRANT FUNDS

Grant funds shall be expended only for the purposes and activities of the project. Expenses which are attributable only in part to this project shall be prorated on a reasonable and consistent basis to determine the amount chargeable to the activities supported by this grant. The following statement, signed by the proper university or college official, will accompany the final fiscal report:

"I certify that all payments requested (or expenditures reported) are for appropriate purposes and in accordance with the approved budgets set forth in the application and award documents."

¹ Exceptions to these conditions should be requested in cases where compliance with one or more of them would cause unnecessary difficulties in carrying out the approved project. A waiver of any condition must be in writing and must be signed by an authorized representative of MA. Any such waiver must be explicit; no waiver may be inferred from the fact that the grant is responsive to an application which may have contained material inconsistent with one or more of these conditions.

5. CONFORMITY WITH BUDGET

Adjustments within the approved budget may be made by the doctoral candidate, with the approval of the grantee, provided the total expenditures do not exceed the amount of the grant and the stipend to be paid the doctoral candidate is not increased.

6. OBLIGATION OF GRANT FUNDS

Grant funds may not be obligated prior to or after the grant period. Obligations outstanding as of the end of the grant period may be liquidated (paid out) after the end of the grant period. Such obligations shall involve only specific commitments for which a need existed in the grant period and which are supported by approved contracts, purchase orders or requisitions, invoices or bills, or other evidence of liability consistent with the grantee's purchasing procedures, and for which the goods or services have been received or rendered within the grant period. All obligations incurred in a given grant period shall be liquidated within 3 calendar months after the end of the grant period.

7. UNOBLIGATED FUNDS

Funds remaining unobligated at the end of the grant period cannot be transferred to another grant. The amount of the free or unobligated balance remaining at the end of the grant period shall be returned to MA when the final financial report for the grant period is submitted. If savings occur in the liquidation of obligations outstanding at the end of the grant period, these become part of the unobligated balance. Refund checks should be made payable to the United States Department of Labor.

8. TRAVEL EXPENSES

Expenses charged for travel shall not exceed those allowable under the customary practice of the grantee.

9. EXPENSES DISALLOWED

No grant funds shall be extended for:

- (a) the purchase of real property;
- (b) the purchase of personal property at prices exceeding \$250 per item, without prior written approval of MA;
- (c) the cost of meals for employees or officials of the grantee except when in travel status;
- (d) cost incurred before or after the grant period; or
- (e) costs not allowable under the applicable provisions of subpart 1-15.3 of the Federal Procurement Regulations (41 CFR 1-15.3).

10. ACCOUNTING FOR PROPERTY

Title to property acquired with grant funds which cost \$250 per item or less shall vest in the grantee. Upon completion of the project, the grantee shall make a report to MA itemizing all nonconsumable property purchased with grant funds which cost more than \$250 per item. MA at that time will determine the disposition to be made of such property.

11. REVOCATION

The Associate Manpower Administrator may revoke this grant in whole or in part for cause. Cause shall include the following: (a) Improper use of grant funds, (b) failure by the grantee or the doctoral candidate to comply with either these conditions or the terms of the project proposal, (c) submittal by the grantee to MA of reports which are incorrect or incomplete in any material respect, or (d) inability of the doctoral candidate to continue to work on the project. In the event of revocation of this grant, the grantee shall cancel its outstanding commitments hereunder covering the procurement of material, supplies, equipment, and miscellaneous items, and shall submit a report covering the activities, findings, and, if any, the conclusions and recommendations resulting from the project work to the date of revocation. In addition, the grantee shall exercise all reasonable diligence to accomplish the cancellation or diversion of its outstanding commitments covering personal services and extending beyond the date of such revocation. Finally, the grantee shall refund to MA any unexpended grant funds, except that revocation shall not affect any amount obligated by the grantee prior to receiving notice of the revocation.

12. INTEREST EARNED ON FEDERAL FUNDS

All interest earned on Federal funds shall be reported on the financial report for the grant period and shall be returned by check payable to the United States Department of Labor.

13. REPORTS

Prior to the end of the grant period, grantee will submit a final report, including 10 reasonably durable, bound copies of the dissertation, covering the activities, implications, conclusions, and recommendations resulting from the project work. A short summary covering these subjects will either be included in or accompany the dissertation. Said final report and dissertation shall contain, either in the preface or on the title page, the following acknowledgement:

"The material in this project was prepared under Grant No(s). (enter appropriate MA numbers) from the Manpower Administration, U.S. Department of Labor under the authority of title I of the Manpower Development and Training Act of 1962. Researchers undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment. Therefore, points of view or opinions stated in this document do not necessarily represent the official position or policy of the Department of Labor."

14. RIGHTS TO AND DISPOSITION OF DATA

The grantee or the doctoral candidate may publish results of the project without prior review by MA, provided that such publications acknowledge (a) that the project was supported by a grant from the Manpower Administration of the U.S. Department of Labor pursuant to the provisions of the Manpower Development and Training Act of 1962, and (b) that "Reproduction in whole or in part is permitted for any purpose of the United States Government." Grantee agrees to furnish five copies of each such publication to MA. The Government may, to the extent that the grantee has the power to grant such rights, duplicate, use, and disclose in any manner and for any purpose whatsoever, and have others so do, all data procured or reports delivered under this

grant. It is understood that the grantee has no right to disclose material of a confidential nature to the Government even though such material has been collected in the performance of this grant. If the grant results in a book or other copyrightable material, the author is free to copyright the work, but MA reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, all copyrighted material and all material which can be copyrighted resulting from this grant. It is further agreed that in any material prepared under this grant under which a license is reserved to the Government under the preceding sentence, the following language shall be added plainly in the vicinity of the copyright: "Reproduction by the United States Government in whole or in part is permitted for any purpose."

15. RECORDS AND ACCOUNTS

The grantee shall maintain such records and accounts, including property, personnel, financial records and equal opportunity, as may be required by the Associate Manpower Administrator to assure a proper accounting for all grant funds. Grantee shall keep records which shall reflect its actual contribution to the project, and, as required by the Bureau of the Budget Circular A-74 (12/13/65), it shall not be less in proportion to the total actual charges against the grant than the ratio indicated in the approved budget. Grantee agrees to make available, for audit purposes, all records required under this clause to MA or the Comptroller General of the United States or his authorized representative, and to retain them for 3 years after the expiration of the grant, unless permission to destroy them is granted by the Associate Manpower Administrator. If requested by the Government, the grantee will furnish the Associate Manpower Administrator prior to the receipt of any Federal funds, an opinion of a certified public accountant indicating that the grantee has an accounting system which is adequate for the purposes of this grant.

16. COVENANT AGAINST CONTINGENT FEES

The grantee warrants that no person or selling agency or other organization has been employed or retained to solicit or secure this grant upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee. For breach or violation of this warrant the Government shall have the right to revoke this grant without liability, or, in its discretion, to deduct from the award or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

17. OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this grant, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this grant if made with a corporation for its general benefit.

18. OTHER GOVERNMENT FUNDS

The grantee represents that no funds other than those awarded under this grant have been received from the Federal Government in payment for any of the activities financed by funds awarded under this grant. If any such funds are hereafter received, the grantee agrees to disclose the fact and return them to the Government.

19. DISCLAIMER OF LIABILITY

The project supported by this grant is that of the grantee and not the Federal Government, which assumes no liability with respect to accidents, illnesses, or claims arising out of the grant. Accordingly, the grantee is advised to take such steps to insure or protect itself as it may deem desirable.

20. QUESTIONNAIRE APPROVAL

No questionnaire or survey plan shall be identified as a government study or government approved study unless the grantee submits to the Associate Manpower Administrator copies of said questionnaires and survey plans for clearance in advance of use in accordance with the Federal Reports Act of 1942.

21. EQUAL OPPORTUNITY

This grant is subject to title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the regulations of the Secretary of Labor issued thereunder which are found at 29 Code of Federal Regulations, Part 31. Grantee assures that no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the proceeds of, or be subject to discrimination under the project supported by this grant. During the period of this grant the grantee assures that neither it nor any other employer performing work under the grant will discriminate against any employer or applicant for employment because of race, creed, color, or national origin, and will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. For breach or violation of this assurance, the Government shall have the right to revoke this grant without liability, or, in its discretion, seek its judicial enforcement.

22. POLITICAL ACTIVITY

No funds provided hereunder shall be used for any partisan political activity or to further the election or defeat of any candidate for public office and no part of the administration of the program authorized by this contract shall be intermingled with or closely affiliated with any partisan political activity. In addition, it should be noted that employees of public bodies and community action agencies may be subject to limitations on their political activities under the Hatch Act [5 U.S.C. 118k(a), 18 U.S.C. 595].

23. LIMITATION ON USE OF FUNDS

(a) No part of the funds provided herein shall be used to provide payments, assistance, or services, in any form, with respect to any individual convicted in any Federal, State, or local court of competent jurisdiction of inciting, promoting, or carrying on a riot, or any group activity resulting in material damage to property or injury to persons, found to be in violation of Federal, State, or local laws designed to protect persons or property in the community concerned.

(b) This condition in its entirety will be inserted in any subcontract, subagreement, or grant resulting herefrom.

**U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION**

4.3 GUIDELINES FOR SUBMISSION OF RESEARCH PROPOSALS—Research Project Grants Under the MDTA

Public and private nonprofit academic institutions and research organizations may apply for grants to support research projects or research-related activities in the manpower field.

Projects approvable under this program include:

1. Research which explores new fields of inquiry.
2. Research which explores new methods of approach to existing fields of inquiry.
3. Studies which test the effectiveness or feasibility of research projects or programs.
4. Syntheses of the current state of knowledge in various research areas in order to provide guides for future programs.

Under special circumstances, grants may also be made to individual researchers associated with eligible institutions or organizations, or to assist the support of research projects underwritten by other agencies, but which require additional monies to assure completion.

GRANT CONDITIONS

The maximum amount of direct cost (see "The Application," paragraph 10.a., p. 169) of any one grant is \$15,000 for a period not to exceed 1 year. For projects scheduled for more than 1 year, additional grants, each within the same limitation, may be made for a total of not to exceed 3 years, subject to availability of appropriated funds, receipt of progress reports showing reasonable progress, and requests for such renewals to be submitted not later than 1 month before the expiration of previous grants. The initial grant will indicate the period for which the Department intends to support the project.

Grant funds may be expended only for the purpose of carrying out the research program as approved. In accordance with the Bureau of the Budget Circular No. A-74 dated December 13, 1965, "Participation in the costs of research supported by Federal grants," the grantee institution must share in the total cost of the project on "more than a token basis."

All grant awards are subject to the condition that the principal investigator designated in the application continues to be responsible for the conduct of the approved project for its duration. Continuation of grants in the event the principal investigator becomes unavailable will be contingent upon written approval by the Department of the person chosen by the grantee to replace the principal investigator.

4.3 Guidelines for Research Project Grants

For applications which are approved, 10 reproduced copies of the final report resulting from the research will be required. For projects extending beyond 1 year, each renewal will be considered as a separate grant, and a progress report will be required with the request for renewal.

Any survey plans, surveys, or questionnaires arising from the research under an approved grant will be identified solely as the responsibility of the grantee, and will in no way be attributed to the Department of Labor.

Publications based on the research conducted under the grant will acknowledge that the research was supported by a grant from the Manpower Administration of the U.S. Department of Labor under the Manpower Development and Training Act of 1962, as amended. The Department will have a nonexclusive right to publish and distribute the final report of the research, and to use the findings, including any research designs developed by the research, for any purpose whatsoever.

The standard conditions applying to all research grants are appended as Conditions Governing Grants in Support of Research Projects, at the end of these guidelines. As indicated below, any desired exceptions from these conditions should be stated with the transmittal of the application.

CRITERIA FOR APPROVAL

A primary consideration in the approval of any grant request is the relevance of the area of study to the objectives of title I of the Manpower Development and Training Act.⁴ Proposals which are determined to be relevant to the objectives of the Manpower Development and Training Act will be considered by a review panel of persons from outside the Department with expertise in the manpower field and approved or disapproved in relation to criteria such as the following:

1. Manpower significance
 - a. The project is focused primarily on significant manpower problems.
 - b. The anticipated results or methodology of the project have broad national interest. Projects limited to special areas provide a basis for generalized conclusions, or have application over a wide area.
2. Research design
 - a. The problem with which the research proposes to deal is clearly defined.
 - b. The proposal reflects an adequate knowledge of other research related to the problem.
 - c. Questions to be answered or hypotheses to be tested are well formulated and clearly stated.
 - d. The proposal outlines fully the procedures to be followed, and whenever applicable, includes information on such matters as sampling procedures, including the size of the population to be studied and the size of sample and control groups, as well as types of data to be gathered, and statistical analyses to be made.
3. Personnel and facilities
 - a. The experience and training of the principal investigator appear adequate to carry out the research.
 - b. The facilities available to the investigator(s) are adequate to carry out the research.
 - c. The plan provides, wherever feasible, for encouraging and increasing

⁴It is suggested that applicants study title I of the MDTA of 1962 before preparing proposals under these guidelines. (See p. 183.)

knowledge and skills of professional personnel and of new research workers.

4. Economic efficiency

- a. The suggested approach to the problem is reasonable in terms of overall cost as compared with the cost of other possible approaches.
- b. The suggested approach to problems involving the analysis of statistical data utilizes, to the extent feasible, data already available or being collected through Government and other sources.
- c. The total proposed expenditure is justifiable in terms of the probable value of the results of the proposed research, and the grantee institution is contributing a reasonable share of the total cost.

Approval may be conditional on acceptance of changes in the project or the budget, or both, as recommended by the review panel.

GRANT REVISIONS

The terms of any approved grant will be revised only if major changes in the areas to be investigated are agreed to be necessary. Changes in the research approach suggested by the development of a project or intended to expedite the achievement of its objectives, but not materially changing the scope and purpose of the study, may be made at the discretion of the grantee. Adjustments within the estimated approved budget may be made at the discretion of the grantee if the total amount of the grant and the total pay and rate of pay of the principal investigator(s) are not increased.

Prior written approval of the Department is required for:

1. Substantial changes in the scope or purpose of a study, with or without changes in the budget;
2. any increase in the total budget for a grant;
3. any increase in the total pay or rate of pay of the principal investigator(s); or
4. any change in the grant period.

SUBMISSION OF APPLICATIONS

Fifteen copies of each application should be sent to:

Associate Manpower Administrator
Manpower Administration
U.S. Department of Labor
Washington, D.C. 20210

Closing dates for applications are January 1, April 1, July 1, and October 1. Applications will be accepted which are postmarked or delivered on or before each of these dates for work scheduled to start 3 months or more following the applicable closing date. However, applications received 1 week or more after a closing date, regardless of postmark, will be considered at the next scheduled closing date. Processing of applications requires approximately 2 months, including evaluation by review panels. Applicants may expect to be notified of action taken about 2 months after the closing date. Applications approved for funding may be activated for work to begin approximately 1 month after notification.

THE APPLICATION

Applications should contain the information requested in the order indicated. There is no printed form to be used.

4.3 Guidelines for Research Project Grants

1. The first page should show the following:

PROPOSAL SUBMITTED TO THE ASSOCIATE MANPOWER ADMINISTRATOR, MANPOWER ADMINISTRATION, U.S. DEPARTMENT OF LABOR, FOR A GRANT IN SUPPORT OF A RESEARCH PROJECT UNDER THE PROVISIONS OF TITLE I OF THE MANPOWER DEVELOPMENT AND TRAINING ACT, PUBLIC LAW 87-415, AS AMENDED.

Project title: (Be concise, descriptive, and as specific as possible. Include key words under which project may be indexed.)

Submitted by: (Legal name of institution or organization which will be used if grant is approved, hereinafter referred to as "organization.")

Address: (Of organization.)

Telephone number: (Of organization. Include area code.)

Principal investigator: (Name, position, and phone number of the principal investigator.)

Transmitted by: (Name, position, and phone number of official who is approving the submission of the proposal. This must be someone with authority to commit the organization to the proposed project. Unless otherwise indicated, all correspondence, including the Notice of Grant, if approved, will be addressed to this official.)

(The proposal should be signed by both the principal investigator and the transmitter on the original or master copy.)

Date: (Date transmitted.)

2. Abstract. On a single separate page submit a summary of the proposal including: (a) Title of project; (b) name of organization; (c) name of principal investigator; (d) objectives; (e) procedures; (f) time schedule, i.e., beginning and ending dates (first year total and project total if longer than 1 year).

3. Problem. Give a brief statement of the problem to be investigated, explaining its importance and significance.

4. Objectives. State the objectives of the research project, including hypotheses to be tested and specific questions to which answers will be sought. For research design studies, include the ultimate objectives of the research to be designed.

5. Relationship to other research. Cite or summarize pertinent research related to the proposed study. Present the rationale upon which the proposal is based. Indicate the uniqueness of the proposal.

6. Procedure. Describe the procedure in detail listing the steps to be followed. Include specific information on each of the following, as appropriate:

- a. General design of project.
- b. Population and sample to be studied.
- c. Data to be gathered and methods to be used.

- d. Methods of analysis to be used.
- e. Time schedule indicating length of time required for each major phase of study.
- 7. Personnel. Give name, title, and a brief statement of the research experience of the principal investigator, and of other key personnel.
- 8. Facilities. Indicate special facilities and similar advantages, including research staff resources, available to the organization.
- 9. Other information. Indicate other information pertinent to the proposal, including the following:
 - a. Amount of financial or other support for this project from other sources.
 - b. Whether this proposal has been or will be submitted to any other agency or organization for financial support.
 - c. Whether this proposal is an extension of or an addition to a previous project supported by the Department of Labor or other Government agency.
 - d. Whether this proposal or a similar one was previously submitted to the Department of Labor or other Government agency.
 - e. Extent to which cooperation has been agreed to by agencies whose support is necessary for the successful completion of the objectives of the proposal.
- 10. Budget. Include a section on estimated costs of the project to be covered by the grant and by the grantee institution from non-Federal sources. Start this section on a new page.

The proposed budget will be reviewed against applicable Federal regulations, such as Bureau of the Budget Circular No. A-21, as part of the review of the proposal. Where changes are necessary for the projects which are otherwise approved, final approval will be conditional on the acceptance of these changes.

The cost of the project includes the costs of necessary direct items of expenditures incurred in its performance; it may also include an amount of overhead or indirect costs at a rate which does not exceed the grantee institution's established audited rate for such projects.

Following the categories as shown in the outline below, and rounding all amounts to the nearest dollar, list anticipated requirements for all items of expenditure in two columns: (1) Amount of funds requested, and (2) amount of the grantee institution's contribution from non-Federal funds. If the project is expected to extend beyond 1 year, indicate amounts required for each year and in total.

a. Direct Costs.

(1) Personal services. Include:

- (a) Salaries⁵ and wages of all personnel which are directly attributable to actual performance under this grant, whether on a full- or part-time basis. (List personnel by title, man-months, and dollar amounts.)
- (b) In connection with the above, but identify separately, allowances for vacation, holiday, and sick leave pay. Also include employee benefits to extent customarily provided by organization.
- (c) Consultants⁵ as required.

⁵For salaries at rates of \$15,000 or more per annum and for consultant fees in excess of \$75 per day, include a statement establishing that each such rate is in accordance with the established compensation rates and policies of the grantee institution.

4.3 Guidelines for Research Project Grants

(2) Materials and supplies. Itemize in broad categories and amounts all materials and supplies which are to be directly expended in performance of the project.

(3) Travel. Include subsistence during travel at actual cost, but not to exceed that allowable under the customary practices of the grantee. Give detail of travel and subsistence, including types of transportation and rates allowed therefor.

(4) Communications. Include telephone and telegraph charges unless these are included in indirect costs.

(5) Services. Include those not specifically covered under personal services. Itemize by category and amount.

(6) Other. Itemize by category and amount. For computer use, show type, number, cost per hour, etc.

b. Indirect Costs or Overhead. A fixed rate which does not exceed the grantee institution's established audited rate may be used. Identify the basis for the established rate—date, audit agency, and reference numbers, if any.

11. A statement acknowledging that the Conditions Governing Grants in Support of Research Projects (which follow) have been reviewed and will be accepted if the grant is approved. If there are any provisions from which the organization desires exception, these should be clearly indicated and justified.

**CONDITIONS GOVERNING GRANTS IN SUPPORT OF
RESEARCH PROJECTS UNDER SECTION 102(5)
OF THE MANPOWER DEVELOPMENT AND
TRAINING ACT OF 1962
(42 U.S. CODE 2572)**

The grant is subject to the conditions listed below and any special conditions which may be attached.*

1. APPLICABILITY OF CONDITIONS

These conditions will be applicable to the grantee, and to any agency or organization which, pursuant to a contract agreement, or other arrangement with the grantee, undertakes responsibility for any part of the approved research project (hereinafter called "project").

2. AMOUNT OF GRANT

The amount of the Federal grant shall not exceed the smaller of (1) the "total amount of this grant" shown in the notice of grant award or (2) the amount of cash expenditures made by the grantee for project purposes during the grant period. For this purpose, the amount of cash expenditures shall include only expenses which are chargeable to the budget of the grantee (other than grantee contributions) and which are allowable costs under the applicable provisions of subpart 1-15.3 of the Federal Procurement Regulations (41 CFR 1-15.3).

3. PAYMENTS

The Government will advance an amount equal to 90 percent of the total amount of the grant. Within 90 days after the work under the grant has been completed, grantee shall submit a final fiscal report accounting for all expenditures under the grant. Upon acceptance by the Manpower Administration (MA) of this report, together with all other reports required by these conditions, the Government will make final payment.

4. USE OF GRANT FUNDS

Grant funds shall be expended only for the purposes and activities of the project. Expenses which are attributable only in part to this project shall be prorated on a

*Exceptions to these conditions should be requested in cases where compliance with one or more of them would cause unnecessary difficulties in carrying out the approved project. A waiver of any condition must be in writing and must be signed by an authorized representative of MA. Any such waiver must be explicit; no waiver may be inferred from the fact that the grant is responsive to an application which may have contained material inconsistent with one or more of these conditions.

4.3 Guidelines for Research Project Grants

reasonable and consistent basis to determine the amount chargeable to the activities supported by this grant. The following statement, signed by the proper university or college official, will accompany the final fiscal report from all educational institutions:

"I certify that all payments requested (or expenditures reported) are for appropriate purposes and in accordance with the approved budgets set forth in the application and award documents."

5. CONFORMITY WITH BUDGET

Adjustments within the approved budget may be made by the grantee, provided the total expenditures do not exceed the amount of the grant and the total pay or rate of pay of the principal investigator(s) is not increased.

6. OBLIGATION OF GRANT FUNDS

Grant funds may not be obligated prior to or after the grant period. Obligations outstanding as of the end of the grant period may be liquidated (paid out) after the end of the grant period. Such obligations shall involve only specific commitments for which a need existed in the grant period and which are supported by approved contracts, purchase orders or requisitions, invoices, or bills, or other evidence of liability consistent with the grantee's purchasing procedures, and for which the goods or services have been received or rendered within the grant period. All obligations incurred in the grant period shall be liquidated within 3 calendar months after the end of the grant period.

7. UNOBLIGATED FUNDS

Funds remaining unobligated at the end of a grant period cannot be transferred to another grant. The amount of the free or unobligated balance remaining at the end of the grant period shall be returned to MA when the final financial report for the grant period is submitted. If savings occur in the liquidation of obligations outstanding at the end of the grant period, these become part of the unobligated balance. Refund checks should be made payable to the United States Department of Labor.

8. TRAVEL EXPENSES

Expenses charged for travel shall be governed by the following: (1) Local travel by public carrier at actual costs, by privately owned automobile at the grantee's usual rate but not to exceed standard Government limitations plus parking fees; (2) out-of-town travel at the actual costs of first-class rail or coach air fare, plus actual costs of subsistence but not to exceed those allowable under the customary practice of the grantee.

9. EXPENSES DISALLOWED

No grant funds shall be expended for:

- (a) the purchase of real property;
- (b) the purchase of personal property at prices exceeding \$250 per item, without prior written approval of MA;
- (c) the cost of meals for employees or officials of the grantee, except when in travel status;
- (d) costs incurred before or after the grant period; or
- (e) costs not allowable under the applicable provisions of subpart 1-15.3 of the Federal Procurement Regulations (41 CFR 1-15.3).

10. ACCOUNTING FOR PROPERTY

Title to property acquired with grant funds which cost \$250 per item or less shall vest in the grantee. Upon completion of the project, the grantee shall make a report to MA itemizing all nonconsumable property purchased with grant funds which cost more than \$250 per item. MA at that time will determine the disposition to be made of such property.

11. REVOCATION

The Associate Manpower Administrator may revoke this grant in whole or in part for cause. Cause shall include the following: (a) Improper use of grant funds, (b) failure by the grantee to comply with either these conditions or the terms of the project proposal, (c) submittal by the grantee to MA of reports which are incorrect or incomplete in any material respect, or (d) inability or unwillingness of the principal investigator to continue work on the project. The Associate Manpower Administrator may also revoke this grant if the grantee should find itself unable or unwilling to accept upon notification by the Government any additional conditions that may be provided by law or by Executive order. In the event of revocation of this grant, the grantee shall cancel its outstanding commitments hereunder covering the procurement of materials, supplies, equipment, and miscellaneous items, and shall submit a report covering the activities, findings, and, if any, the conclusions and recommendations resulting from the project work to the date of revocation. In addition, the grantee shall exercise all reasonable diligence to accomplish the cancellation or diversion of its outstanding commitments covering personal services and extending beyond the date of such revocation. Finally, the grantee shall refund to MA any unexpended grant funds, except that revocation shall not affect any amount obligated by the grantee prior to receiving notice of the revocation.

12. INTEREST EARNED ON FEDERAL FUNDS

All interest earned on Federal grant funds shall be reported on the financial report for the grant period and shall be returned by check payable to the United States Department of Labor.

13. REPORTS

Prior to the end of the grant period, grantee shall submit 10 reasonably durable, bound copies of a final research report covering the activities, research findings, implications, conclusions, and recommendations resulting from the project work. A short summary covering these subjects will either be included in or accompany the report. Said final report shall contain, either in the preface or on the title page, the following acknowledgement:

"The material in this project was prepared under Grant No(s). (enter appropriate MA numbers) from the Manpower Administration, U.S. Department of Labor under the authority of title I of the Manpower Development and Training Act of 1962. Researchers undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment. Therefore, points of view or opinions stated in this document do not necessarily represent the official position or policy of the Department of Labor."

14. RIGHTS TO AND DISPOSITION OF DATA

The grantee may publish results of the project without prior review by MA, provided that such publications acknowledge (a) that the project was supported by a grant from the Manpower Administration of the U.S. Department of Labor, pursuant to the provisions of the Manpower Development and Training Act of 1962, and (b) that reproduction by the United States Government in whole or in part is permitted for any purpose. Grantee agrees to furnish five copies of each such publication to MA. The Government may, to the extent that the grantee has the power to grant such rights, duplicate, use, and disclose in any manner and for any purpose whatsoever, and have others so do, all data procured or reports delivered under this grant. It is understood that the grantee has no right to disclose material of a confidential nature to the Government even though such material has been collected in the performance of this grant. If the grant results in a book or other copyrightable material, the author is free to copyright the work, but MA reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, all copyrighted material and all material which can be copyrighted resulting from this grant. It is further agreed that in any material prepared under this grant under which a license is reserved to the Government under the preceding sentence, the following language shall be added plainly in the vicinity of the copyright: "Reproduction by the United States Government in whole or in part is permitted for any purpose."

15. RECORDS AND ACCOUNTS

The grantee shall maintain such records and accounts, including property, personnel, financial records and equal opportunity, as may be required by the Associate Manpower Administrator to assure a proper accounting for all grant funds. Grantee shall keep records which shall reflect its actual contribution to the project, and as required by the Bureau of the Budget Circular A-74 (12/13/65), it shall not be less in proportion to the total actual charges against the grant than the ratio indicated in the approved budget. Grantee agrees to make available, for audit purposes, all records required under this clause to MA or the Comptroller General of the United States or his authorized representative, and to retain them for 3 years after the expiration of this grant, unless permission to destroy them is granted by the Associate Manpower Administrator. If requested by the Government, the grantee will furnish the Associate Manpower Administrator prior to the receipt of any Federal funds, an opinion of a certified public accountant indicating that the grantee has an accounting system which is adequate for the purposes of this grant.

16. COVENANT AGAINST CONTINGENT FEES

The grantee warrants that no person or selling agency or other organization has been employed or retained to solicit or secure this grant upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee. For breach or violation of this warrant, the Government shall have the right to revoke this grant without liability or, in its discretion, to deduct from the award or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

17. OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this grant, or to any benefit that may arise therefrom;

but this provision shall not be construed to extend to this grant if made with a corporation for its general benefit.

18. GRATUITIES

The Government may, by written notice to the grantee, revoke this grant if it is found, after notice and hearing, by the Secretary or his duly authorized representative, that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the grantee, or any agent or representative of the grantee, to any officer or employee of the Government with a view toward securing this grant: PROVIDED, that the existence of the facts upon which the Secretary or his duly authorized representative makes such findings shall be in issue and may be reviewed in any competent court.

19. OTHER GOVERNMENT FUNDS

The grantee represents that no funds other than those awarded under this grant have been received from the Federal Government in payment for any of the activities financed by funds awarded under this grant. If any such funds are hereafter received, the grantee agrees to disclose the fact and return them to the Government.

20. DISCLAIMER OF LIABILITY

The project supported by this grant is that of the grantee and not the Federal Government which assumes no liability with respect to accidents, illnesses, or claims arising out of the grant. Accordingly, the grantee is advised to take such steps to insure or protect itself as it may deem desirable.

21. QUESTIONNAIRE APPROVAL

No questionnaire or survey plan shall be identified as a Government study or Government approved study unless the grantee submits to the Associate Manpower Administrator copies of said questionnaires and survey plans for clearance in advance of use in accordance with the Federal Reports Act of 1942.

22. EQUAL OPPORTUNITY

During its conduct of this project, the grantee agrees as follows:

- (a) The grantee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The grantee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The grantee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by MA setting forth the provisions of this nondiscrimination clause.
- (b) The grantee will, in all solicitations or advertisements for employees placed by or in behalf of the grantee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

4.3 Guidelines for Research Project Grants

(c) The grantee will send to each labor union or representative of workers with which he has a collective-bargaining agreement or other contract or understanding a notice, to be provided by MA, advising the labor union or workers' representative of the grantee's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The grantee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor, U.S. Department of Labor (hereinafter called "Secretary").

(e) The grantee will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary, or pursuant thereto, and will permit access to his books, records, and accounts by MA and the Secretary for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of the grantee's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this grant may be revoked in whole or in part and the grantee may be declared ineligible for further Government contracts or grants in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary, or as otherwise provided by law.

(g) The grantee will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The grantee will take such action with respect to any subcontract or purchase order as the Department of Labor may direct as a means of enforcing such provisions including sanctions for noncompliance: *Provided, however*, that in the event the grantee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Department of Labor, the grantee may request the United States to enter into such litigation to protect the interests of the United States.

23. GOVERNMENT PROPERTY

Title to all property furnished by the Government shall remain in the Government. Title to all property purchased with grant funds which cost more than \$250 per item shall vest in the Government upon delivery. Title to Government property shall not be affected by the incorporation or attachments thereof to any property not owned by the Government, nor shall such Government property or any part thereof, be or become a fixture or lose its identity as personality by reason of affixation to any realty.

24. PRINCIPAL INVESTIGATOR

The availability of the services of the person named in the notice of grant as "principal investigator" is one of the conditions of the grant. Grantee agrees to inform

the Government immediately whenever it appears to be impossible for him to continue to work on the project as planned. Under such circumstances the grant may be revoked unless a substitute, to be approved by MA, is found.

25. POLITICAL ACTIVITY

No funds provided hereunder shall be used for any partisan political activity or to further the election or defeat of any candidate for public office and no part of the administration of the program authorized by this contract shall be intermingled with or closely affiliated with any partisan political activity. In addition, it should be noted that employees of public bodies and community action agencies may be subject to limitations on their political activities under the Hatch Act [5 U.S.C. 118k(a), 18 U.S.C. 595].

26. LIMITATION ON USE OF FUNDS

(a) No part of the funds provided herein shall be used to provide payments, assistance, or services, in any form, with respect to any individual convicted in any Federal, State, or local court of competent jurisdiction, of inciting, promoting, or carrying on a riot, or any group activity resulting in material damage to property or injury to persons, found to be in violation of Federal, State, or local laws designed to protect persons or property in the community concerned.

(b) This condition in its entirety will be inserted in any subcontract, subagreement or grant resulting herefrom.

APPENDIX A

**SUBCOMMITTEE ON RESEARCH OF THE
NATIONAL MANPOWER ADVISORY COMMITTEE**

178-179

Appendix A

SUBCOMMITTEE ON RESEARCH OF THE NATIONAL MAN- POWER ADVISORY COMMITTEE

The National Manpower Advisory Committee's Subcommittee on Research, appointed by the Secretary of Labor in 1962, advises the Secretary of Labor and the Secretary of Health, Education, and Welfare on a broad program of research in the field of manpower requirements, resources, utilization, and training. Members of the Subcommittee are representatives of labor and management and distinguished social scientists in manpower-related fields.

Membership as of June 30, 1968:

Richard A. Lester, Chairman
Associate Dean and Director of Graduate Program
Woodrow Wilson School of Public and International
Affairs
Princeton University
Princeton, N.J.

Irving Beller
Economist, Department of Research
AFL-CIO
Washington, D.C.

Samuel Ganz
Meadow Brook
Long Island, N.Y.

Robert B. Highsaw
Professor and Head
Department of Political Science
University of Alabama
University, Ala.

Edgar M. Hoover
University Professor (Economics)
University of Pittsburgh
Pittsburgh, Pa.

Charles C. Killingsworth
Professor of Industrial and Labor Relations
Michigan State University
East Lansing, Mich.

Jerome Moss, Jr.
Professor
College of Education
University of Minnesota
Minneapolis, Minn.

Nevitt Sanford
Director
Institute for Study of Human Problems
Stanford University
Palo Alto, Calif.

Gerald G. Somers
Professor of Economics
University of Wisconsin
Madison, Wis.

Ross Stagner
Chairman
Department of Psychology
Wayne State University
Detroit, Mich.

NMAC Subcommittee on Research

William F. Whyte
Professor

New York State School of Industrial and Labor
Relations
Cornell University
Ithaca, N.Y.

Hal J. Wright
Washington Representative
Standard Oil Company of New Jersey
Washington, D.C.

Eli Ginzberg (Ex Officio Member)
Chairman of National Manpower Advisory Committee
Director of Conservation of Human Resources
Columbia University
New York, N.Y.

APPENDIX B

**MANPOWER DEVELOPMENT AND TRAINING
ACT OF 1962, TITLE I, AS AMENDED**

Appendix B

MANPOWER DEVELOPMENT AND TRAINING ACT OF 1962, TITLE I, AS AMENDED¹ (42 U.S.C. 2571-2620)

AN ACT

Relating to manpower requirements, resources, development, and utilization, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Manpower Development and Training Act of 1962."

TITLE I—MANPOWER REQUIREMENTS, DEVELOPMENT, AND UTILIZATION

Statement of Findings and Purpose

SEC. 101. The Congress finds that there is critical need for more and better trained personnel in many vital occupational categories, including professional, scientific, technical and apprenticeable categories; that even in periods of high unemployment, many employment opportunities remain unfilled because of the shortages of qualified personnel; and that it is in the national interest that current and prospective manpower shortages be identified and that persons who can be qualified for these positions through education and training be sought out and trained as quickly as is reasonably possible, in order that the Nation may meet the staffing requirements of the struggle for freedom. The Congress further finds that the skills of many persons have been rendered obsolete by dislocations in the economy arising from automation or other technological developments, foreign competition, relocation of industry, shifts in market demands, and other changes in the structure of the economy; that Government leadership is necessary to insure that the benefits of automation do not become burdens of widespread unemployment; that the problem of assuring sufficient employment opportunities will be compounded by the extraordinarily rapid growth of the labor force in the next decade, particularly by the entrance of young people into the labor force, that improved planning and expanded efforts will be required to assure that men, women, and young people will be trained and available to meet

¹ P.L. 87-415, Mar. 15, 1962, 76 Stat. 24-33, as amended by (a) P.L. 87-729, Oct. 1, 1962, 76 Stat. 679, (b) P.L. 88-214, Dec. 19, 1963, 77 Stat. 422, (c) P.L. 89-15, Apr. 26, 1965, 79 Stat. 75, (d) P.L. 89-792, Nov. 7, 1966, 80 Stat. 1434, and (e) P.L. 89-794, Nov. 8, 1966, 80 Stat. 1451.

shifting employment needs; that many persons now unemployed or underemployed, in order to become qualified for reemployment or full employment must be assisted in providing themselves with skills which are or will be in demand in the labor market; that the skills of many persons now employed are inadequate to enable them to make their maximum contribution to the Nation's economy; and that it is in the national interest that the opportunity to acquire new skills be afforded to these people with the least delay in order to alleviate the hardships of unemployment, reduce the costs of unemployment compensation and public assistance, and to increase the Nation's productivity and its capacity to meet the requirements of the space age. The Congress further finds that many professional employees who have become unemployed because of the specialized nature of their previous employment are in need of brief refresher or reorientation educational courses in order to become qualified for other employment in their professions, where such training would further the purposes of this Act. It is therefore the purpose of this Act to require the Federal Government to appraise the manpower requirements and resources of the Nation, and to develop and apply the information and methods needed to deal with the problems of unemployment resulting from automation and technological changes and other types of persistent unemployment.

Evaluation, Information, and Research

SEC. 102. To assist the Nation in accomplishing the objectives of technological progress while avoiding or minimizing individual hardship and widespread unemployment, the Secretary of Labor shall—

- (1) evaluate the impact of, and benefits and problems created by automation, technological progress, and other changes in the structure of production and demand on the use of the Nation's human resources; establish techniques and methods for detecting in advance the potential impact of such developments; develop solutions to these problems, and publish findings pertaining thereto;
- (2) establish a program of factual studies of practices of employers and unions which tend to impede the mobility of workers or which facilitate mobility, including but not limited to early retirement and vesting provisions and practices under private compensation plans; the extension of health, welfare, and insurance benefits to laid-off workers; the operation of severance pay plans; and the use of extended leave plans for education and training purposes. A report on these studies shall be included as part of the Secretary's report required under section 107;
- (3) appraise the adequacy of the Nation's manpower development efforts to meet foreseeable manpower needs and recommend needed adjustment, including methods for promoting the most effective occupational utilization of and providing useful work experience and training opportunities for untrained and inexperienced youth;
- (4) promote, encourage, or directly engage in programs of information and communication concerning manpower requirements, development, and utilization, including prevention and amelioration of undesirable manpower effects from automation and other technological developments and improvement of the mobility of workers;
- (5) arrange, through grants or contracts, for the conduct of such research and investigations as give promise of furthering the objectives of this Act; and
- (6) establish a program of experimental, developmental, demonstration and pilot projects, through grants to or contracts with public or private nonprofit organizations, or through contracts with other private organizations, for the purpose of improving techniques and demonstrating the effectiveness of specialized methods

in meeting the manpower, employment, and training problems of worker groups such as the long-term unemployed, disadvantaged youth, displaced older workers, the handicapped, members of minority groups, and other similar groups. In carrying out this subsection the Secretary of Labor shall, where appropriate, consult with the Secretaries of Health, Education, and Welfare, and Commerce, and the Director of the Office of Economic Opportunity. Where programs under this paragraph require institutional training, appropriate arrangements for such training shall be agreed to by the Secretary of Labor and the Secretary of Health, Education, and Welfare. He shall also seek the advice of consultants with respect to the standards governing the adequacy and design of proposals, the ability of applicants, and the priority of projects in meeting the objectives of this Act.

Job Development Programs

SEC. 103. The Secretary of Labor shall stimulate and assist, in cooperation with interested agencies both public and private, job development programs, through on-the-job training and other suitable methods, that will serve to expand employment by the filling of those service and related needs which are not now being met because of lack of trained workers or other reasons affecting employment or opportunities for employment.

Labor Mobility Demonstration Projects

SEC. 104. (a) During the period ending June 30, 1968, the Secretary of Labor shall develop and carry out, in a limited number of geographical areas, pilot projects designed to assess or demonstrate the effectiveness in reducing unemployment of programs to increase the mobility of unemployed workers by providing assistance to meet their relocation expenses. In carrying out such projects the Secretary may provide such assistance, in the form of grants or loans, or both, only to involuntarily unemployed individuals who cannot reasonably be expected to secure full-time employment in the community in which they reside, have bona fide offers of employment (other than temporary or seasonal employment), and are deemed qualified to perform the work for which they are being employed.

(b) Loans or grants provided under this section shall be subject to such terms and conditions as the Secretary shall prescribe, with loans subject to the following limitations:

- (1) there is reasonable assurance of repayment of the loan;
- (2) the credit is not otherwise available on reasonable terms from private sources or other Federal, State, or local programs;
- (3) the amount of the loan, together with other funds available, is adequate to assure achievement of the purposes for which the loan is made;
- (4) the loan bears interest at a rate not less than (A) a rate determined by the Secretary of the Treasury, taking into consideration the average market yield on outstanding Treasury obligations of comparable maturity, plus (B) such additional charge, if any, toward covering other costs of the program as the Secretary may determine to be consistent with its purposes; and
- (5) the loan is repayable within not more than ten years.

(c) Of the funds appropriated for a fiscal year to carry out this Act, not more than \$5,000,000 may be used for the purposes of this section.

Trainee Placement Assistance Demonstration Projects

SEC. 105. During the period ending June 30, 1968, the Secretary of Labor shall develop and carry out experimental and demonstration projects to assist in the placement of persons seeking employment through a public employment office who have successfully completed or participated in a federally assisted or financed training, counseling, work training, or work experience program and who, after appropriate counseling, have been found by the Secretary to be qualified and suitable for the employment in question, but to whom employment is or may be denied for reasons other than ability to perform, including difficulty in securing bonds for indemnifying their employers against loss from the infidelity, dishonesty, or default of such persons. In carrying out these projects the Secretary may make payments to or contracts with employers or institutions authorized to indemnify employers against such losses. Of the funds appropriated for a fiscal year to carry out this Act, not more than \$300,000 may be used for purposes of this section.

Skill and Training Requirements

SEC. 106. The Secretary of Labor shall develop, compile, and make available, in such manner as he deems appropriate, information regarding skill requirements, occupational outlook, job opportunities, labor supply in various skills, and employment trends on a National, State, area, or other appropriate basis which shall be used in the educational, training, counseling, and placement activities performed under this Act.

Manpower Report

SEC. 107. The Secretary of Labor shall make such reports and recommendations to the President as he deems appropriate pertaining to manpower requirements, resources, use, and training; and the President shall transmit to the Congress within sixty days after the beginning of each regular session (commencing with the year 1963) a report pertaining to manpower requirements, resources, utilization, and training.

INDEXES

A. INDEX—Contractor and Grantee Organizations and Institutions

(For code numbers, first digit is section number, second digit is subsection number, and last digits refer to numerical order of descriptions within each subsection.)

	CODE NUMBERS	
	Contracts	Grants
A		
American Association of University Women Educational Foundation.....	3.1.01	
American Institutes for Research.....	3.1.02	
American University, The.....		3.2.01
Arizona State University.....	1.5.01	2.2.01, 3.2.02
Arizona, University of.....		3.2.03
Arkansas, University of.....		1.3.01
Arthur D. Little, Inc.....	3.1.03	
Association for the Help of Retarded Children.....	1.1.01	
Atlantic Research Corp.....	1.1.02	
Atlanta University.....		1.2.01
Auerbach Corp.....	3.1.04	
B		
Battelle Memorial Institute.....	1.1.03	
Behavior Research Institute.....	2.1.01, 3.1.05	
Bowling Green State University.....		1.4.01
Brandeis University.....		1.3.02, 1.3.03, 1.3.04
Bureau of Social Science Research, Inc..	1.1.04, 1.5.02, 3.1.06	3.2.04, 3.2.05
C		
California, University of, Berkeley.....	1.1.05, 1.1.06, 1.1.07, 3.1.07, 3.1.08, 3.1.09	1.3.05, 1.3.06, 1.3.07, 1.3.08, 1.4.02, 1.4.03
California, University of, Los Angeles..	1.1.08	1.3.09, 1.3.10
Cambridge Center for Social Studies...	2.1.02, 3.1.10	
Catholic University of America, The...		1.3.11
Census, Bureau of the.....	1.1.09, 1.1.10, 1.1.11, 1.1.49, 2.1.03, 3.1.11, 3.1.12, 3.1.13	
Central Washington State College.....		1.4.04
Chicago, University of.....		1.3.12, 1.3.13
Claremont Graduate School.....		1.3.14
Colorado, University of.....	3.1.15	
Columbia University.....	1.1.12, 1.1.13, 3.1.16, 3.1.17, 3.1.18, 3.1.19, 3.1.20, 3.1.21	1.3.15, 1.3.16, 1.3.17, 1.3.18, 1.3.19, 1.3.20, 1.4.05, 1.4.06, 2.2.02, 3.2.06
Commission on Human Resources and Advanced Education.....	3.1.22	
Cornell University.....	1.1.14	1.3.21, 1.3.22, 1.3.23, 1.3.24, 1.4.07, 2.2.03, 3.2.07, 3.2.08, 3.2.09

A. Index of Contractor and Grantee Organizations

	CODE NUMBERS	
	Contracts	Grants
D		
Defense, Department of.	1.1.15	
Denver, University of.	3.1.23	
Dillard University.		3.2.10
Duke University.		1.3.25
E		
Educational Testing Service.		2.3.01, 3.2.11
Employment Security, Bureau of.	1.1.16, 1.1.50, 3.1.24	
F		
Florida, University of.	1.1.17	
Fordham University.	1.5.03	1.3.26, 1.3.27
G		
George Washington University, The.	1.5.04, 2.1.04, 3.1.25	2.3.02, 3.2.12
Georgia Institute of Technology.	3.1.26	
Georgia, University of.		3.2.13
Grambling College.		3.2.14
Greenleigh Associates, Inc.	1.1.18, 3.1.27	
H		
Harvard University.	1.1.19, 1.1.20, 1.1.21, 1.1.22, 3.1.28, 3.1.29	1.3.28, 1.3.29, 1.3.30, 1.4.08, 2.2.04, 2.2.05, 3.2.15, 3.2.16
Houston, University of.	1.1.23, 3.1.30	1.4.09
Human Sciences Research, Inc.	3.1.31	
I		
Illinois Institute of Technology.	1.1.24	
Illinois, University of.	1.1.25	1.3.31, 2.3.03, 3.2.17
Indiana University Foundation.		1.3.32, 1.4.10
International Labour Office.	2.1.05, 2.1.06, 3.1.32, 3.1.33, 3.1.34, 3.1.35, 3.1.36	
Iowa State University of Science and Technology.		1.2.02
Iowa, The University of.		1.3.33
J		
Johns Hopkins University, The.		1.3.34
K		
Kentucky, The University of, Research Foundation.	1.1.26, 1.1.27	1.3.35
L		
Labor Statistics, Bureau of.	1.1.28, 2.1.07, 2.1.08, 2.1.09, 3.1.37, 3.1.38, 3.1.39, 3.1.40, 3.1.41, 3.1.42, 3.1.43, 3.1.44	
Lafayette Clinic, The.	2.1.10	
M		
Maine, University of.		1.2.03
Maryland, University of.	1.1.29	1.3.36, 2.3.04, 3.2.18, 3.2.19

A. Index of Contractor and Grantee Organizations

193

	CODE NUMBERS	
	Contracts	Grants
Massachusetts Institute of Technology..		1.3.37, 1.3.38, 1.4.11, 3.2.20, 3.2.21, 3.2.22
Massachusetts, University of.....		1.4.12, 1.4.13
Michigan State University.....	1.1.30, 1.1.31, 1.1.32, 1.1.33, 3.1.46	1.3.39, 1.3.40, 1.3.41, 1.3.42, 1.3.43, 1.4.14, 2.2.06, 2.2.07, 2.3.05, 3.2.23, 3.2.24, 3.2.25
Michigan, The University of.....	1.1.34, 1.1.35, 1.1.36, 1.1.37, 1.5.05, 3.1.47, 3.1.48	1.3.44, 1.3.45, 1.3.46, 1.3.47, 1.3.48, 1.3.49, 1.4.15, 1.4.16, 1.4.17, 1.4.18, 1.4.19, 2.3.06, 3.2.26, 3.2.27, 3.2.28
Minnesota, University of.....	1.1.38, 1.5.06, 1.5.07, 3.1.49, 3.1.50	1.4.20, 2.3.07, 3.2.29
Missouri, University of.....	2.1.11, 3.1.51, 3.1.52	3.2.30
N		
Nathan Associates, Robert R.....	1.1.39	
National Analysts, Inc.....	1.5.08	
National Bureau of Economic Research.	3.1.53, 3.1.54	
National Committee for Children and Youth.....	3.1.55	
National Education Association.....	3.1.56	
National Educational Television and Radio Center.....	3.1.57	
National Industrial Conference Board....	1.1.40	
National League of Cities.....	1.5.09	
National Manpower Policy Task Force.	1.1.41, 1.1.42, 2.1.12, 3.1.58	
National Opinion Research Center.....	2.1.13, 3.1.59	3.2.31
National Planning Association.....	1.1.43, 1.1.44, 2.1.14, 3.1.60	
New School for Social Research.....		1.3.50
New York, State University of, Buffalo.	1.5.10	
New York, The Research Foundation of State University of, Albany.....		1.4.21
New York University.....	1.1.45, 1.5.11, 3.1.61	1.3.51, 2.3.08, 3.2.32, 3.2.33
North Carolina Agricultural and Technical College, Greensboro.....	1.1.46	
North Carolina State University, Raleigh	1.1.46, 3.1.62	1.2.04
North Carolina, University of.....	1.1.47, 3.1.63	
North Star Research and Development Institute.....	1.5.12, 3.1.64	
North Texas State University.....		1.4.22
Northeastern University.....	1.1.48, 3.1.65	1.4.23, 1.4.24
Northern Michigan University.....	3.1.66	
Northwestern University.....		1.3.52
O		
Oakland Small Business Development Center, Inc.....		2.3.09, 3.2.34
Ohio State University Research Foundation, The.....	1.1.49	1.3.53, 2.2.08
Oklahoma State University of Agricultural and Applied Science, Research Foundation.....	2.1.15, 3.1.67	1.2.05, 2.2.09, 3.2.36, 3.2.37, 3.2.38
Oregon, University of.....		1.4.25, 1.4.26
P		
Pennsylvania State University, The....	1.1.50, 1.1.51, 1.1.52, 1.5.13, 2.1.16, 3.1.68	
Pennsylvania, University of.....		1.3.54, 2.3.10, 3.2.39

A. Index of Contractor and Grantee Organizations

	CODE NUMBERS	
	Contracts	Grants
Philadelphia, City of.....	1.1.53	
Phillips-Ford Corp.....	1.1.69	
Planning Research Corp.....	1.1.54, 2.1.17	
President's Task Force on Manpower Conservation, The.....	1.1.71	
Princeton University.....	1.1.55	1.3.55, 1.3.56
Purdue Research Foundation.....	1.1.56	1.3.57, 1.3.58, 1.4.27, 1.4.28, 2.3.11, 2.2.40
R		
Research Triangle Institute.....	1.1.57, 1.1.72	
Rice University.....	1.5.14	
Rochester, University of.....		1.4.29
Rutgers—The State University.....	1.1.73	1.4.30
S		
St. Mary's College.....		1.2.41
San Houston State College.....		2.2.12, 2.2.42
San Diego State College.....		1.4.31
San Jose State College.....	1.1.74	
Santa Clara, University of.....		1.4.32
Software Systems, Inc.....	1.1.58	
Southern State College Foundation.....		1.4.33
South Bend Community School Corp.....	1.1.75	
South Florida, University of.....		1.2.43
Southern Illinois University.....		1.4.34
Southern Methodist University.....		1.3.59
Southern University and Agricultural and Mechanical College.....		1.2.44
Stanford Research Institute.....	1.1.76, 1.1.77, 1.1.78, 1.1.79	
Stanford University.....	1.1.59	1.3.60, 1.3.62, 1.4.35
Staten Island Mental Health Society, Inc.....	1.5.21, 1.1.80	
Syracuse University.....		1.3.62, 1.3.63, 2.2.19
System Development Corporation.....	1.1.80	
T		
Temple University.....	1.1.38, 1.1.81, 1.1.82	1.3.66, 1.4.36
Texas A&M University.....	1.1.68	
Texas Southern University.....	1.1.83	
Texas Technological College.....	1.2.45	2.2.21
Texas, The University of.....	1.1.39, 1.1.80	1.3.64
Tulane University.....		1.3.65
Tulane Institute.....	1.1.86	
U		
Uganda Institute for Employment Re- search, The W. E.....	1.1.60, 1.1.80, 1.1.85	
Utah Institute, The.....	1.1.60	
U.S. Industries, Inc.....	1.1.86	
Utah State University.....		1.3.66
V		
Vanderbilt University.....		1.4.37
Vassar, University of.....	1.1.86	
Virginia State College, Norfolk Division.....	1.1.87	1.3.67
Vocational Guidance and Rehabilitation Service.....	1.1.88	

A. Index of Contractor and Grantee Organizations

195

	CODE NUMBERS	
	Contracts	Grants
W		
Washington University.....	3.2.47	2.2.12
Washington, University of.....		1.3.67, 1.3.68
Wayne State University.....	1.1.64, 1.1.65, 1.1.66	1.3.69, 1.4.19, 1.4.38, 2.3.06
West Virginia University.....	3.2.48	1.4.39, 2.3.13
Western Reserve University.....	1.5.16	
Wisconsin, University of.....	1.1.67, 2.1.21, 2.1.22, 3.1.89, 3.1.90, 3.1.91, 3.1.92	1.3.70, 1.3.71, 1.3.72, 1.3.73, 1.3.74, 1.3.75, 1.4.40, 1.4.41, 2.2.13, 2.2.14, 3.2.49, 3.2.50, 3.2.51
Women's Bureau.....	1.1.68, 1.1.69, 1.1.70, 1.1.71, 3.1.93, 3.1.94	
X		
Xavier University.....		3.2.52
Y		
Yale University.....		1.3.76, 1.3.77, 1.3.78, 2.2.15, 3.2.53

B. INDEX—Individuals Associated With Contracts or Grants

(For code numbers, first digit is section number, second digit is subsection number, and last digits refer to numerical order of descriptions within each subsection.)

A	CODE NUMBER
Aaronson, Sidney.....	1.3.51
Adams, Leonard P.....	3.2.07
Adelson, Marvin.....	1.1.60
Alix, Ernest K.....	1.4.34
Alpert, Ida.....	1.1.01
Alter, Henry C.....	3.1.57
Altman, James W.....	3.1.02
Ames, Edward.....	1.3.58
Ammer, Dean S.....	3.1.65
Anderson, Lynn B.....	1.1.66
Andrews, W. H.....	1.4.10
Aronson, Elliot.....	3.1.49
Ashenfelter, Orley.....	2.1.20
Askin, A. Bradley.....	1.3.38
Athanasious, Robert B.....	1.3.47
Ax, Albert F.....	2.1.10

B	CODE NUMBER
Bachman, J.....	1.1.37
Bain, Trevor.....	3.2.03
Baldwin, Steph E.....	1.3.67
Barbash, Jack.....	1.4.40, 2.2.14
Bardwell, George E.....	3.1.23
Barhydt, Gordon.....	1.4.16
Barkin, Solomon.....	1.4.13
Barnes, B. L.....	1.3.33
Baron, Reuben.....	1.1.64
Barton, Sam B.....	1.4.22
Bass, Alan.....	1.1.64
Baum, Samuel.....	1.1.10
Becker, Gary S.....	1.3.19
Becker, Rev. Joseph M., S.J.....	2.1.02, 3.1.10
Beltzky, A. Harvey.....	3.1.85
Bendishay, Haskel.....	1.4.21
Benjamin, Darrell R.....	1.3.57
Berg, Ivar.....	1.3.16
Bergstrom, Howard E.....	3.1.50
Berry, Charles A., Jr.....	3.2.14
Bideman, Albert D.....	3.1.06
Black, Stanley.....	1.1.15
Blauzer, Robert.....	1.3.05
Black, Joseph.....	3.1.37
Blum, Paul Rountree.....	2.2.09, 3.2.30
Boggs, Gerald Eugene.....	3.2.37
Born, Michael E.....	1.1.30, 1.4.14
Bradford, David.....	1.1.34

	CODE NUMBER
Brazziel, William F.	3. 1. 87
Briggs, Vernon M., Jr.	3. 1. 83
Brooke, D. L.	1. 1. 17
Brown, Arthur A.	3. 1. 03
Brown, Carol A.	1. 3. 18
Brown, David.	3. 1. 63
Brown, Jack.	2. 3. 09, 3. 2. 34
Bundy, Mary Lee.	3. 2. 18
Burack, Elmer H.	1. 1. 24
Burchinal, Lee D.	3. 1. 55
Burns, Arthur F.	1. 3. 17
Byron, Rev. William J.	1. 3. 36

C	CODE NUMBER
Cadmus, Robert R.....	1.1.47
Cain, Leonard F.....	1.3.11
Campbell, Rex R.....	3.2.30
Cannell, Charles F.....	1.1.36
Cargill, R. F.....	1.1.32
Carroll, Adger B.....	3.1.62
Chalupsky, Albert B.....	3.1.69
Chamberlain, Neil W.....	2.2.15
Champagne, J. E.....	1.1.23
Chaplin, David.....	1.4.41
Chernick, Jack.....	3.1.73
Choldin, Harvey M.....	1.1.31
Christensen, C. L.....	1.4.10
Clark, David H.....	1.2.03
Cloinger, Dale O.....	3.2.43
Cobb, Beatrix.....	2.2.11
Coffey, John.....	1.1.03
Cohen, Jacob.....	1.1.01
Cohen, Julius S.....	2.2.10
Cohen, Malcolm S.....	3.2.21
Cooke, Gerald.....	1.1.66
Cooms, Dorothy H.....	3.1.47
Cooper, Sophia.....	3.1.39
Crafton, James S.....	2.2.13, 3.2.49
Creamer, Daniel.....	1.1.40
Cressman, E. R. F. W.....	1.1.05, 3.1.07
Crowder, Norville David.....	1.3.25
Callan, Donald E.....	1.3.23

D	CODE NUMBER
Danna, Calvin.....	1.1.01
Dailley, Charles A.....	3.2.01
Davis, Louis E.....	1.3.10

196/197

B. Index of Individuals

CODE NUMBER

Dawis, Rene.....	1. 1. 38
Delehanty, George E.....	1. 3. 52, 3. 2. 20
Denman, Clayton C.....	1. 4. 04
DePoy, Marilyn Joyce.....	1. 3. 74
Deutsch, Steven E.....	1. 4. 26
Devlin, Laurence E.....	1. 3. 13
Diamond, Daniel E.....	1. 1. 45
Dodge, Murray.....	3. 1. 04
Doeringer, Peter B.....	1. 1. 19, 3. 1. 29
Dolan, Eleanor F.....	3. 1. 01
Drew, Alfred S.....	1. 1. 56
Drotning, John E.....	1. 5. 10
Duncan, Joseph W.....	1. 1. 03
Duncan, Otis Dudley.....	1. 3. 44
Dunlop, John T.....	1. 1. 19, 1. 1. 41, 1. 3. 28, 1. 3. 29, 1. 3. 30, 1. 4. 08, 2. 2. 04
Durand, John D.....	1. 3. 54

E

Easterlin, Richard A.....	3. 1. 53
Ebel, Karl H.....	3. 1. 33
Eckerman, William.....	1. 1. 57
Elliot, Charles.....	1. 5. 03
Epstein, Cynthia F.....	1. 4. 06
Evans, Robert, Jr.....	3. 2. 20
Ewen, R. B.....	1. 5. 11

F

Faunce, William A.....	1. 3. 39
Falk, R. Frank.....	1. 5. 07
Fearn, Robert M.....	1. 2. 04
Ferguson, John Duncan A.....	1. 4. 23
Ferguson, Leigh H.....	3. 1. 86
Ferman, Louis A.....	1. 3. 45, 1. 3. 46, 1. 3. 48, 1. 3. 49, 1. 4. 15, 1. 4. 19, 3. 1. 48
Fichter, Rev. Joseph H., S.J.....	2. 1. 13, 3. 1. 59
Filley, Alan.....	1. 3. 73
Fine, Sidney A.....	1. 1. 62, 3. 1. 31
Finegan, T. Aldrich.....	1. 4. 37
Fink, Joseph.....	1. 1. 60
Finkner, A. L.....	1. 1. 57
Fishman, Leslie.....	3. 1. 15
Fitzpatrick, Rev. Joseph P., S.J.....	1. 3. 26, 1. 3. 27
Flanagan, Robert J.....	1. 3. 07
Folger, John K.....	3. 1. 22
Foltman, Felician F.....	1. 3. 21, 1. 3. 66, 2. 2. 03
Form, William H.....	1. 3. 40, 2. 2. 06
Foster, Howard G.....	1. 3. 23
Fottler, Myron D.....	1. 3. 15
Franke, Walter H.....	1. 1. 25
Franklin, N.....	2. 1. 06, 3. 1. 36
Freeman, Richard B.....	1. 1. 22, 2. 2. 04, 3. 2. 15
French, J. R. P.....	1. 1. 34
Friedland, William H.....	1. 4. 07, 3. 2. 09
Friedlander, Frank.....	1. 5. 16
Friedman, Clara.....	1. 1. 18
Palmer, John L.....	3. 1. 26

G

CODE NUMBER

Gadson, J. H., Jr.....	1. 2. 07
Gayer, Paul D.....	1. 3. 60
Gerber, William.....	2. 1. 09
Gillingham, J. B.....	1. 3. 67
Ginzberg, Eli.....	1. 1. 12, 1. 1. 13, 3. 1. 17, 3. 1. 21
Gitlow, Abraham L.....	3. 2. 32
Given, Charles W.....	2. 3. 05
Glasgow, John M.....	1. 1. 61
Gold, Martin.....	1. 4. 17
Goldfarb, Robert.....	1. 3. 76
Goldstein, Harold M.....	1. 4. 24
Goode, William J.....	1. 4. 06
Goodman, Leonard H.....	1. 5. 02, 3. 2. 05
Gordon, Margaret S.....	1. 1. 06, 1. 1. 07, 3. 1. 08
Gordon, R. A.....	3. 1. 09
Grabe, Sven.....	2. 1. 05, 3. 1. 34
Grabill, Wilson H.....	3. 1. 11
Green, Alfred L.....	3. 1. 24
Green, Robert E.....	3. 1. 26
Greene, Stanley.....	1. 1. 09, 3. 1. 12
Greenfield, Harry I.....	3. 1. 19
Greenleigh, Arthur.....	3. 1. 27
Greenspan, Harry J.....	2. 1. 07
Griffith, William S.....	1. 3. 13
Groemping, Franz A.....	1. 1. 28
Gross, Edward.....	2. 3. 07, 3. 2. 29
Groves, Harold.....	1. 3. 71
Gubins, Samuel.....	1. 3. 34
Guion, Robert M.....	1. 4. 01
Gurin, Gerald.....	1. 1. 34
Gusfield, Joseph R.....	1. 3. 31
Gwartney, James D.....	1. 3. 68

H

Hamilton, Phyllis D.....	3. 1. 79
Han, Paul B.....	3. 1. 26
Hansen, Gary B.....	1. 3. 66, 3. 1. 58
Hansen, Niles M.....	1. 1. 27
Hanson, Marjorie L.....	1. 3. 19
Harbison, Frederick H.....	1. 1. 55, 1. 3. 55
Hardin, Einar.....	1. 1. 30
Harkness, James P.....	1. 1. 47
Harmeling, Mary B.....	1. 3. 26
Harna, Louis T.....	1. 2. 06, 3. 1. 81
Harper, Dean.....	1. 4. 29
Harris, Benjamin.....	1. 1. 46
Harwood, Edwin S.....	1. 5. 14
Haurek, Edward W.....	1. 3. 31
Hausman, Leonard J.....	3. 2. 50
Heneman, Herbert C., Jr.....	1. 4. 20
Herberg, Dorothy M.....	1. 3. 45
Herrnstadt, Irwin L.....	1. 1. 48
Hiestand, Dale L.....	3. 1. 16, 3. 1. 17
Hilaski, Harvey.....	3. 1. 43
Hildebrand, George H.....	1. 3. 22, 1. 3. 24
Hilleman, Sally T.....	1. 3. 20
Hilton, Mary.....	3. 1. 93
Hiss, Robert J.....	1. 3. 24
Hirschfelder, Jack.....	1. 3. 09
Hodge, James Leslie.....	2. 2. 01, 3. 2. 02

	CODE NUMBER
Holmstrom, Lynda L.	1. 3. 03
Holt, James S.	1. 1. 51
Hopkins, Terence K.	1. 3. 18, 1. 3. 20
Horowitz, Morris A.	1. 1. 48, 1. 4. 24
Horvitz, Daniel G.	1. 1. 57
Hubner, Walter.	1. 3. 73
Huff, Stanley W.	1. 3. 55
Hughes, Everett C.	1. 3. 03
Hundley, James Riddle, Jr.	2. 3. 05, 3. 2. 23
Huq, A. M.	3. 1. 72
Huson, Carolyn F.	3. 2. 31
Hyman, Herbert.	1. 4. 05

I

Iacobelli, John L.	1. 3. 64
Ihnen, Loren A.	3. 1. 62
Indik, Bernard P.	3. 1. 73

J

Jaffe, Richard.	3. 2. 31
Jakubauskas, Edward B.	1. 2. 02
Jansyn, Leon R.	1. 4. 30
Johnson, David B.	3. 1. 89
Johnson, Louise.	3. 2. 05
Jones, Ethel B.	3. 2. 13
Jones, Jane Gaudette.	1. 3. 02
Jones, Norman H.	1. 1. 54, 2. 1. 17

K

Kahn, Robert L.	1. 1. 37, 1. 5. 05
Kaplan, Oscar J.	1. 4. 31
Katz, Joseph.	1. 1. 59
Katzell, Raymond A.	1. 5. 11
Kaufman, Jacob J.	1. 1. 50, 1. 1. 52, 2. 1. 16
Kehrer, Barbara Holtz.	1. 3. 77
Kellogg, Frazier.	3. 2. 22
Keyserling, Mary Dublin.	1. 1. 68, 1. 1. 69, 1. 1. 70, 1. 1. 71, 3. 1. 94
Killinger, George G.	2. 3. 12, 3. 2. 42
Kincaid, Harry V.	3. 1. 77, 3. 1. 79
Kirschenbaum, Alan B.	1. 3. 63
Kopf, Thomas J.	3. 1. 69
Korman, A. K.	1. 5. 11
Korn, Harold A.	1. 1. 59
Korna, Alexander.	1. 3. 29
Konara, Karen.	1. 4. 36
Kreider, Leonard Emil.	2. 2. 08, 3. 2. 35
Kruger, Daniel H.	1. 1. 33
Kuhn, James W.	1. 3. 15, 3. 1. 20
Kuptain, Harold.	1. 1. 16

L

Lachman, Sheldon J.	2. 1. 01, 3. 1. 05
Laday, Donald.	3. 1. 38, 3. 1. 40
Laner, Stephen.	1. 1. 05
Lantz, Herman R.	1. 4. 34
Lawlis, Gerland Frank.	2. 2. 11, 3. 2. 45
Lewson, Walter R., Col. USA (Ret).	1. 1. 02
Lewson, William H.	1. 3. 14
Lehergott, Stanley.	3. 1. 45
Leibold, William K.	1. 3. 37, 1. 4. 28

CODE NUMBER

Lecht, Leonard A.	1. 1. 43, 1. 1. 44, 2. 1. 14, 3. 1. 60
Lee, Everett S.	1. 4. 12
Leiserson, Mark W.	1. 3. 76, 1. 3. 77, 1. 3. 78
Lerman, Robert I.	1. 3. 37
Leshner, Saul.	1. 1. 53
Leung, Cho-Kin.	3. 1. 61
Levin, Max M.	1. 1. 59
Levine, Louis.	1. 1. 52, 2. 1. 16, 3. 1. 68
Lewis, Morgan V.	1. 5. 13
Lieberman, Leonard.	1. 3. 43
Liebhaufsky, E. E.	3. 1. 30
Light, Donald W., Jr.	1. 3. 04
Light, Ivan H.	1. 3. 06
Lipsky, David B.	1. 5. 10
Little, J. Kenneth.	1. 1. 67, 2. 1. 22
London, H. H.	2. 1. 11, 3. 1. 52
Loomba, R. P.	3. 1. 74

M

McCaffree, Kenneth.	1. 3. 68
McCalley, Hazel.	1. 1. 18
McGowan, John F.	3. 1. 51
McKee, James B.	1. 3. 43
McKellips, Bruce R.	1. 3. 78
McNelis, David P.	1. 1. 11, 2. 1. 03, 3. 1. 13
McNichols, Thomas J.	1. 1. 24
Magnusson, Margaret L.	3. 1. 25
Mahar, James F.	3. 1. 23
Maier, Frank H.	1. 3. 12
Mandell, Wallace.	1. 5. 15, 3. 1. 80
Mangum, Garth L.	1. 1. 41, 1. 1. 42, 2. 1. 12
Margolis, Julius.	1. 3. 61
Marshall, F. Ray.	1. 1. 26, 1. 3. 35, 1. 3. 64, 3. 1. 83
Martinez, Thomas M.	1. 4. 32
Mason, John D.	1. 3. 42
Medow, Herman.	1. 5. 16
Mendelsohn, Robert A.	1. 4. 38
Meyer, Eleanor H.	1. 3. 27
Miles, Guy H.	1. 5. 12, 3. 1. 64
Miller, Ann R.	2. 3. 10, 3. 2. 39
Miller, Glenn W.	1. 3. 53
Miller, Paul.	1. 1. 61
Miller, Paul B.	1. 3. 53
Miller, Robert W.	2. 3. 13, 3. 2. 48
Miller, Stephen J.	1. 3. 02
Miller, Taulman A.	1. 3. 32
Milligan, William.	3. 1. 44
Mills, Daniel Quinn.	1. 1. 21, 2. 2. 05, 3. 2. 16
Mills, Edwin S.	1. 3. 34
Miner, Jerry.	1. 3. 62
Mintz, Warren.	1. 3. 51
Moe, John V.	3. 2. 11
Monet, Jacques.	3. 1. 33
Moore, Geoffrey H.	3. 1. 54
Morrison, Edward J.	3. 1. 02
Moser, Collette.	1. 3. 70
Mosler, Eva.	1. 1. 35, 3. 2. 26
Muir, Allan H.	1. 1. 54
Malvey, Susan E.	3. 2. 30
Mathukrishnan, S.	1. 3. 75
Myers, John G.	1. 1. 40

B. Index of Individuals

N

CODE NUMBER

Nadworny, Milton J.....	3. 2. 46
Nash, Ruth Cowan.....	3. 1. 55
Niebuhr, Herman.....	2. 1. 18, 3. 1. 82
Nemore, Arnold.....	1. 1. 42, 2. 1. 12
Newcomb, Theodore M.....	1. 3. 47
Newman, Theodore E.....	1. 3. 33
Noble, Jeanne L.....	2. 3. 08, 3. 2. 33
Norgren, Paul H.....	3. 1. 18
Norton, John Herbert.....	2. 3. 02, 3. 2. 12
Nosow, Sigmund.....	1. 1. 30, 3. 1. 46

O

Oaklander, Harold.....	1. 3. 16
Oewell, Charles.....	3. 1. 68
Offenbacher, Deborah.....	1. 3. 50
Offner, Paul.....	1. 3. 56
Olanoff, Richard.....	1. 1. 53
Ormsby, Ralph.....	1. 1. 53
Orton, Eliot S.....	1. 3. 22
Otlewski, Robert E.....	1. 3. 32
Overs, Robert P.....	3. 1. 88

P

Pallone, Nathaniel J.....	3. 1. 75
Parker, John.....	1. 1. 35
Parkhurst, Kenneth L.....	3. 1. 66
Parnes, Herbert S.....	1. 1. 49, 2. 2. 08
Pease, John.....	1. 3. 40
Pejovich, Svetozar.....	3. 2. 41
Pelosi, John W.....	2. 2. 10
Perrucci, Carolyn Cummings.....	1. 4. 27, 2. 3. 11, 3. 2. 40
Peterson, Cheryl J.....	1. 4. 33
Peterson, Gertrude D.....	3. 1. 78
Peterson, John M.....	1. 3. 01
Phillips, Llad.....	1. 3. 28
Photiadis, John D.....	1. 4. 39
Pierson, Frank C.....	3. 1. 70
Piker, Jeffry.....	1. 3. 46, 2. 3. 06, 3. 2. 28
Piore, Michael J.....	1. 4. 11, 3. 1. 29
Pooler, William.....	1. 3. 63
Powers, Mary G.....	1. 5. 03
Pownall, George A.....	1. 1. 29
Prasow, Paul.....	1. 1. 08
Prater, Robert.....	1. 1. 23
Price, Daniel O.....	2. 1. 19

Q

Quinn, Robert P.....	1. 5. 05
----------------------	----------

R

Rajan, G. Soundara.....	3. 1. 90
Rakstrom, Stig.....	1. 3. 69
Rasmussen, Dale.....	1. 3. 59
Reagan, James.....	2. 1. 17
Rader, Melvin W.....	1. 3. 60, 1. 4. 35
Ross, Albert.....	1. 3. 36
Roisman, Leonard.....	1. 3. 65
Rothman, Beatrice G.....	3. 1. 17
Richardson, Robert Brooks.....	2. 2. 03, 3. 2. 00

CODE NUMBER

Ridall, Richard.....	3. 1. 04
Riefler, Roger F.....	1. 1. 15
Riggs, Robert.....	2. 1. 17
Ritter, Tom.....	1. 1. 16
Roberts, Richard S., Jr.....	3. 1. 76
Robin, Gerald D.....	1. 5. 08
Rogers, Charles H.....	1. 1. 46
Rogers, Daniel C.....	2. 2. 15, 3. 2. 53
Rogers, David.....	1. 1. 14
Rogers, Virgil M.....	3. 1. 56
Rosen, Hjalmar.....	1. 1. 65, 1. 1. 66
Rosenberg, Marvin.....	1. 5. 16
Rosenfeld, Carl.....	2. 1. 08, 3. 1. 41
Rossmiller, George E.....	1. 1. 32
Rostker, Bernard Daniel.....	1. 3. 62
Ruchlin, Hirsch Samuel.....	2. 2. 02, 3. 2. 06
Rungeling, Brian S.....	1. 3. 35
Rytina, Joan.....	2. 2. 06, 3. 2. 24

S

Salandini, Rev. Victor.....	1. 3. 11
Sandmeyer, Robert L.....	2. 1. 15, 2. 2. 09, 3. 1. 67
Sawers, Larry B.....	1. 3. 49
Schevitz, Jeffrey M.....	1. 3. 08
Schiltz, Michael E.....	3. 2. 31
Schoen, Sterling H.....	2. 2. 12
Schulman, Jay.....	1. 1. 14
Schultz, T. W.....	1. 3. 12
Schwartz, Morris S.....	1. 3. 04
Scoville, James G.....	1. 1. 20, 3. 1. 28
Sellier, F.....	3. 1. 35
Seltzer, George.....	1. 4. 20
Sharp, Laure M.....	1. 1. 04, 3. 1. 06, 3. 2. 04
Shattuck, Gerald M.....	1. 5. 03
Shearer, John C.....	1. 2. 05
Shepard, Jon M.....	2. 2. 07, 3. 2. 25
Sheppard, Harold L.....	2. 1. 20, 3. 1. 85
Shey, Thomas H.....	1. 3. 50
Shimberg, Benjamin.....	2. 3. 01, 3. 2. 11
Shirom, Arie.....	2. 2. 14, 3. 2. 51
Sicron, Moshe.....	1. 3. 54
Siegel, Jay.....	1. 3. 61
Silvius, G. Harold.....	1. 3. 69
Singer, Benjamin D.....	2. 1. 01, 3. 1. 05
Singleton, Robert.....	1. 3. 09
Smith, Joel.....	1. 3. 25
Smith, Wilbur J.....	1. 3. 71
Sneden, Lawrence E.....	1. 3. 41
Snyder, Jack H.....	1. 3. 72
Selow, Robert M.....	1. 3. 37, 1. 3. 38
Somers, Gerald G.....	1. 1. 67, 1. 3. 70, 1. 3. 72, 1. 3. 74, 1. 3. 75, 2. 1. 21, 2. 1. 22, 2. 2. 13, 3. 1. 91, 3. 1. 92
Sommerfeld, Donald.....	1. 3. 48
Sonquist, John.....	1. 1. 35
Spector, Aaron.....	1. 1. 53
Spier, John S.....	1. 3. 05
Spritzer, Allan D.....	1. 3. 21
Stagner, Ross.....	1. 1. 64
Stain, Bruno.....	3. 1. 61
Starr, James L.....	3. 1. 89

CODE NUMBER

Stern, Louis H.....	1. 4. 09
Stevens, David W.....	1. 1. 50
Stieber, Jack.....	1. 3. 42
Strasel, Harold C.....	1. 1. 58
Sturmthal, Adolf.....	2. 3. 03, 3. 2. 17
Sullivan, Clyde E.....	1. 5. 15, 3. 1. 80
Sullivan, William.....	3. 2. 41
Sultan, Paul.....	1. 3. 14
Summers, Worth C.....	1. 3. 39
Susman, Gerald I.....	1. 3. 10
Sweet, David.....	1. 1. 03
Sweet, James A.....	1. 3. 44
Sweney, Arthur.....	2. 2. 11
Sykes, Richard E.....	1. 5. 06

T

Tangri, Sandra S.....	1. 4. 18
Taplin, Lois G.....	3. 2. 52
Tate, Donald J.....	2. 2. 01
Taylor, David P.....	1. 4. 11
Teets, Philip G.....	1. 3. 52
Temple, Frederick C.....	3. 2. 44
Thal-Larsen, Margaret.....	1. 1. 07
Thompson, Daniel C.....	3. 2. 10
Tobias, Jack.....	1. 1. 01
Toby, Jackson.....	1. 4. 30
Trout, Grafton.....	1. 1. 31
Trow, Martin A.....	1. 3. 06
Turner, Thomas L.....	1. 3. 65

U

Ullrich, Robert Albert.....	2. 2. 12, 3. 2. 47
Ulman, Lloyd....	1. 1. 06, 1. 1. 07, 1. 3. 07, 1. 4. 02, 1. 4. 03

V

CODE NUMBER

Voland, Maurice E.....	2. 3. 05
Vredevoogd, William E.....	2. 3. 05

W

Wachtel, Dawn Day.....	3. 2. 27
Wachter, Michael L.....	1. 3. 30
Waisanen, F. B.....	1. 3. 41
Wallace, Gaylen R.....	3. 2. 36
Wallerstedt, John.....	1. 1. 02
Walther, Regis H.....	1. 5. 04, 2. 1. 04, 3. 1. 25
Walther, Richard E.....	3. 1. 86
Waltman, Ray.....	2. 1. 17
Warner, Aaron W.....	2. 2. 02, 3. 1. 18
Warner, Larkin B.....	2. 1. 15, 2. 2. 09, 3. 1. 67
Wasserman, Paul.....	3. 2. 18
Watson, Donald A.....	1. 4. 25
Weiger, Hans W.....	1. 1. 02
Weinberg, Edgar.....	3. 1. 42
Weinstein, Paul A.....	1. 1. 39, 1. 3. 36
Welch, Finis.....	1. 3. 59
Whyte, William F.....	1. 1. 14
Wilensky, Harold L.....	1. 1. 06, 1. 3. 08
Williams, J. Earl.....	1. 1. 23
Williams, Lawrence A.....	1. 5. 09
Williams, Thomas T.....	3. 2. 44
Wilson, Thomas F.....	1. 3. 17
Wright, Earl.....	1. 3. 01
Wysong, John W.....	2. 3. 04, 3. 2. 19

Y

Young, Harding B.....	1. 2. 01
-----------------------	----------

Z

Zarka, C.....	3. 1. 35
Zudak, Lawrence S.....	1. 3. 58

C. INDEX—Research Subjects

(For code numbers, first digit is section number, second digit is subsection number, and last digits refer to numerical order of descriptions within each subsection.)

A	CODE NUMBER
Adolescents (See Youth)	
Adult Basic Education.....	1. 3. 48, 3. 1. 86
Adult Education, Occupational Mobility.....	1. 3. 13
Aerospace Industry	
Scientists and Engineers, Unemployment and Reemployment.....	3. 1. 74
Technological Change.....	3. 1. 07
Age-Group Comparisons (See also Older Workers; Youth)	
Labor Force Behavior.....	1. 1. 49
Training, Cost-Benefit Analysis.....	1. 3. 34
Agriculture (See Farmworkers; Rural Areas)	
Aid to Families with Dependent Children.....	1. 3. 19
Aircraft Industry.....	1. 1. 08
Allied Health Professions (See Health Services)	
American Indians (See also Minority Groups)	
Employment Discrimination.....	2. 1. 20
Labor Force Participation.....	1. 3. 43
Training.....	1. 3. 43, 2. 2. 09
Vocational Education.....	1. 2. 05, 2. 2. 09
Appalachia, Out-Migration.....	1. 3. 26, 1. 4. 39
Apparel Industry	
Commuter Aliens, Impact.....	1. 3. 35
School-to-Work Transition.....	1. 3. 20
Apprenticeship.....	3. 1. 90
Attitudes toward.....	1. 1. 56
Conferences.....	2. 1. 21, 3. 1. 91
Construction Industry.....	1. 3. 23, 1. 4. 03
International Manpower Studies.....	1. 1. 12, 1. 1. 28, 2. 1. 09, 3. 1. 33
Minority Participation.....	2. 1. 21, 3. 1. 83
Model Programs, Development.....	1. 1. 56
Related Instruction.....	2. 1. 21, 2. 2. 13
Technological Change, Adjustment to.....	1. 1. 56
Arbitrators.....	1. 2. 02
Area Skill Surveys.....	1. 3. 70
Area Studies (See Regional and Area Studies)	
Aspirations, Career.....	1. 4. 23
College.....	1. 3. 31
Negroes.....	2. 1. 16, 3. 1. 84
Technological Change, Impact of.....	1. 1. 35
Youth.....	1. 3. 31, 1. 4. 17, 2. 1. 16, 3. 1. 84
Atlanta, Ga.....	1. 2. 01

	CODE NUMBER
Attachment to Work (See Labor Force Participation)	
Attitudes (See also Motivation)	
Apprenticeship.....	1. 1. 56
Aspirations, Career (See Aspirations, Career)	
Blind Workers.....	1. 4. 05
Blue-Collar Workers.....	1. 3. 73
Engineers.....	1. 4. 01
Health Manpower.....	1. 3. 04, 1. 3. 18
Long-Term Unemployed.....	1. 4. 15
Man-Machine Relationship.....	2. 2. 07
Maritime Workers.....	2. 2. 12
New Workers.....	1. 3. 18, 1. 3. 20, 1. 4. 01, 2. 2. 01
Orientation.....	1. 1. 65
Poverty, Culture of.....	1. 3. 41, 1. 3. 65
Resignation.....	1. 4. 34
Scientists.....	1. 3. 39
Students, Social Work.....	1. 3. 50
Supervisors (See Supervisors, Managers)	
Trainees.....	1. 1. 34, 1. 1. 64, 1. 4. 15, 1. 4. 34, 1. 5. 05, 1. 5. 07, 1. 5. 10, 1. 5. 13, 2. 2. 01
Women Workers.....	1. 3. 03, 1. 4. 27, 1. 4. 38, 2. 2. 01
Youth (See Youth, Attitudes toward Work)	
Automation (See Technological Change)	

B	
Banking Industry	
Lending, Discrimination.....	2. 3. 09
Manpower Projections.....	1. 2. 06
Technological Change.....	3. 1. 07
Benefit-Cost Analyses (See Cost-Benefit Analyses)	
Benefits, Supplemental Unemployment.....	2. 1. 02
Blind Workers.....	1. 4. 05
Blue-Collar Employment (See also individual entries for specific occupations)	
Motivations.....	1. 3. 73, 1. 4. 01
Projections, Employment.....	2. 1. 07
Technological Change.....	1. 3. 73, 1. 4. 10
White-Collar, Mobility to.....	3. 1. 89
Boston, Mass.....	1. 4. 08
Boys Club, Chicago.....	1. 4. 17
Bracero Agreement (See also Farmworkers).....	1. 3. 11, 1. 3. 42
"Brain Drain," Developing Nations.....	1. 2. 05
Building Trades (See Construction Industry)	

C. Index of Research Subjects

C	CODE NUMBER
California.....	1. 3. 11, 1. 3. 14, 1. 4. 33
Capital-Labor Substitution, Farmworkers.....	1. 1. 17
	1. 1. 32, 1. 3. 12, 2. 3. 04, 2. 3. 05
Career Aspirations (See Aspirations, Career)	
Career Choice (See Occupational Choice)	
Career Patterns (See Occupational Patterns)	
Central City (See Ghetto Areas)	
Child Bearing.....	1. 1. 09, 1. 4. 27
Child Day Care (See also Working Mothers).....	1. 1. 68
Projections, National Need.....	1. 1. 44
Child Spacing.....	3. 1. 11
Chinese and Japanese Americans (See also Minority Groups)	
Employment Discrimination.....	2. 1. 20
Migration, Intra-City.....	1. 3. 61
Small Business Proprietorship.....	1. 3. 06, 2. 3. 09
Social Mobility.....	1. 3. 06
Citrus Fruit Industry.....	1. 1. 17
Civil Disorders, Participants.....	1. 1. 58, 2. 1. 01
Civil Rights Act of 1964, Minority Group Em- ployment (See also Employment Discrimi- nation).....	2. 1. 20
Clerical Occupations, Training.....	2. 2. 01
Cleveland, Ohio.....	1. 1. 04, 1. 4. 39
Coal Mining	
Labor Turnover.....	1. 3. 28
Technological Change.....	1. 4. 10
Unemployment, International Manpower Studies.....	2. 1. 06
Collective Bargaining (See also Labor-Manage- ment Relations; Labor Unions)	
Arbitrators.....	1. 2. 02
Emerging Sectors..	1. 2. 06
On-the-Job Training, Standards.....	2. 1. 09
Working Conditions, Effect on.....	2. 1. 16
College Graduates (See also New Workers; Youth, School-to-Work Transition)	
Employment.....	1. 2. 01, 1. 4. 18, 1. 4. 38, 2. 1. 13, 3. 2. 31, 3. 2. 44, 3. 2. 52
Labor Market.....	2. 2. 04, 3. 1. 22
Manpower Utilization.....	3. 2. 10, 3. 2. 14
Migration.....	1. 2. 03
Negroes.....	1. 2. 01, 2. 1. 13, 3. 2. 10, 3. 2. 14, 3. 2. 31, 3. 2. 44, 3. 2. 52
White-Nonwhite Employment Comparisons.	2. 1. 13, 3. 2. 31
Women.....	1. 4. 18, 1. 4. 38
College Students	
Decision to Attend.....	1. 3. 31
Engineering.....	1. 3. 47
Occupational Choice.....	1. 1. 59, 1. 3. 31, 2. 2. 04
Social Work.....	1. 3. 50
College Teachers, Placement.....	3. 1. 63
Colleges, Community.....	1. 2. 04, 1. 3. 13
Commercial Lending, Discrimination.....	2. 3. 09
Communities	
Economically Stagnant.....	1. 4. 04
Employment Discrimination.....	1. 3. 46
Receptivity to Manpower Development Pro- grams.....	1. 4. 19

	CODE NUMBER
Commuting	
Distance to Work, Migration Factor.....	1. 3. 61
Ghetto Residents.....	1. 1. 63, 1. 3. 56
Mexico-U.S., Impact of Aliens.....	1. 1. 61, 1. 3. 35
Military-Base Employees.....	1. 2. 05
Unemployment Rate, Factor in Equalizing...	1. 4. 09
Compensation (See Earnings, Income, Wages)	
Concentrated Employment Program	
Boston, Mass.....	1. 4. 08
Effectiveness.....	1. 3. 48, 1. 4. 08, 1. 5. 16
Participants, Retention.....	1. 5. 13
Conferences and Symposia	
Apprentice Training.....	2. 1. 21, 3. 1. 91
Cost-Benefit Analysis.....	1. 1. 67
Counseling and Guidance.....	3. 1. 93, 3. 1. 94
Manpower Projections, Long-Term.....	3. 1. 09
Manpower Research, General.....	1. 1. 52, 2. 1. 12, 2. 1. 16, 3. 1. 22
Minorities.....	2. 1. 19, 2. 1. 21, 3. 1. 92
School-to-Work Transition.....	1. 1. 42
Unskilled Workers.....	3. 2. 32
Women Physicians, Utilization.....	1. 1. 71
Youth, Southern.....	3. 1. 84
Construction Industry	
Apprenticeship.....	1. 3. 23, 1. 4. 03
Employment and Unemployment....	1. 1. 21, 2. 2. 05
Labor Supply and Demand..	1. 1. 21, 1. 3. 23, 1. 4. 03
Manpower Utilization.....	1. 1. 21
Skill Requirements.....	1. 4. 03
Consumer Behavior, Ghetto Area.....	1. 2. 06
Correctional Officers, Training Needs.....	2. 3. 12
Cost-Benefit Analyses	
Conference.....	1. 1. 67
Education.....	2. 2. 15
Mass Transportation.....	1. 1. 63
Methodology.....	1. 1. 54
On-the-Job Training.....	1. 1. 54, 1. 3. 59
Training, Retraining.....	1. 1. 30, 1. 1. 54, 1. 3. 15, 1. 3. 34, 1. 3. 59, 1. 3. 71, 1. 3. 76, 1. 4. 14, 2. 2. 09
Vocational Education.....	1. 4. 14, 3. 1. 62
Counseling and Guidance	
Boys Club, Chicago.....	1. 4. 17
Counseling and Guidance Occupations.....	3. 1. 51
Employment Agencies (See Employment Services)	
Ex-Offenders.....	1. 4. 30
Girls.....	3. 1. 93, 3. 1. 94
Group Counseling....	1. 1. 65, 1. 1. 66, 1. 5. 01, 1. 5. 04
Long-Term Unemployed.....	1. 1. 53, 1. 1. 65, 1. 5. 05
Military Personnel, Former.....	2. 2. 03
Minority Group Clients.....	1. 1. 66, 1. 3. 20, 1. 4. 32, 2. 3. 07
Neighborhood Youth Corps.....	1. 5. 01, 1. 5. 04
Rural-Urban Migrants.....	1. 1. 04
School Placement Services...	1. 1. 07, 1. 3. 20, 1. 4. 02
Women Workers.....	1. 1. 66, 1. 1. 69, 3. 1. 01
Youth.....	1. 1. 12, 1. 3. 20, 1. 4. 17, 2. 3. 07, 3. 1. 80, 3. 1. 84
Youth Opportunity Centers.....	2. 3. 07

CODE NUMBER

Crime and Offenders

- Civil Disorders, Participants..... 1. 1. 58, 2. 1. 01
- Ex-Offenders, Employment... 1. 1. 29, 1. 4. 30, 3. 1. 80
- Juvenile Delinquents..... 1. 4. 17
- Parolees, Employment..... 1. 1. 29
- Small Business Proprietorship..... 1. 4. 30
- Training, Correctional Institutions... 1. 1. 29, 3. 1. 80
- Cuban Refugees (See also Minority Groups).... 1. 3. 27, 1. 3. 60

D

- Dairy Industry..... 2. 3. 04
- Data Retrieval (See Information Services; Information Science)
- Day Care of Children (See Child Day Care)
- Defense Industries
 - Contract Termination, Labor Force Implications..... 1. 3. 08, 3. 2. 03
 - Manpower Implications of Spending. 1. 1. 15, 1. 1. 43
- Demographic Studies (See Population)
- Denver, Colo..... 3. 1. 15
- Depressed Areas (See Ghetto Areas)
- Dialect Remediation..... 2. 1. 18
- Dictionary of Occupational Titles..... 1. 1. 10, 1. 1. 20, 1. 1. 62
- Disability Compensation, Claims Handling..... 1. 4. 22
- Disadvantaged Workers (See also Minority Groups; Long-Term Unemployed; Handicapped Workers)
 - Counseling..... 1. 1. 69
 - Employment and Unemployment..... 1. 1. 19, 1. 3. 09, 1. 5. 09
 - Hiring Standards and Practices..... 1. 1. 45
 - Labor Force Participation..... 1. 3. 49, 1. 3. 56
 - Minimum Wage..... 1. 3. 09
 - Program Needs..... 1. 1. 44, 1. 1. 54
 - Subsidized Employment..... 1. 1. 12, 1. 1. 18, 1. 1. 44
 - Women..... 1. 1. 69
- Discrimination (See also Minority Groups; individual entries for specific minorities)
 - Commercial Lending..... 2. 3. 09
 - Community Factors..... 1. 3. 46
 - Comparative Studies (See White-Nonwhite Comparisons)
 - Employment (See Employment Discrimination)
 - Railroad Operating Crafts..... 1. 3. 05
- Domestics
 - Attitudes and Perceptions..... 2. 3. 08
 - Job-Bank Concept..... 1. 3. 36
 - Social Mobility..... 1. 4. 41
 - Working Conditions..... 1. 4. 41, 2. 3. 08
- Draft (See Selective Service Rejectees, Characteristics)
- Dropouts, College Engineering Students..... 1. 3. 47
- Dropouts, High School (See also Youth; Neighborhood Youth Corps)..... 1. 1. 46, 3. 2. 37
- Preventive Teaching..... 1. 3. 69
- Rehabilitation..... 3. 2. 36
- Dropouts, Labor Force (See Labor Force Participation, Nonparticipants)

E

CODE NUMBER

Earnings, Income, Wages (See also Low-Income Groups)

- Education..... 2. 2. 15
- Farmworkers..... 1. 1. 17, 1. 3. 11, 1. 3. 42
- Health Services Industry..... 1. 1. 12, 1. 4. 24
- Income Distribution..... 1. 3. 29
- Income Subsidization..... 1. 1. 12, 1. 1. 18, 1. 1. 44, 2. 1. 02
- Inexperienced vs. Experienced Workers..... 1. 3. 22
- Intergenerational Comparison..... 1. 3. 40
- International Manpower Studies.... 1. 3. 75, 2. 1. 09
- Labor Supply and Demand, Retail Trade.... 1. 3. 52
- Lifetime Earnings..... 2. 2. 15
- Low-Wage Employment..... 3. 2. 20
- Migrants..... 1. 3. 25
- Minimum Wage (See Minimum Wage)
- Neighborhood Youth Corps..... 1. 5. 14
- Occupational Choice, Factor in..... 2. 2. 04
- Posttraining..... 1. 1. 54, 1. 1. 64, 1. 2. 01, 1. 3. 75, 1. 3. 76, 1. 4. 14, 2. 1. 11, 2. 2. 09
- Public Assistance..... 1. 3. 19, 3. 2. 50
- Tariff Protection, Relation to..... 1. 2. 04
- Wage Differentials..... 1. 3. 30, 1. 3. 33
- Wage Model, Local Labor Markets..... 1. 3. 30
- Wage Reports, Unemployment Insurance.... 1. 4. 14
- White-Nonwhite..... 1. 3. 68
- Working Poor..... 3. 2. 27
- Econometric Models (See Theoretical Models)
- Economic Growth and Development
 - Business Fluctuations..... 1. 3. 17
 - Manpower Implications..... 1. 1. 12, 3. 1. 17
 - Minority Employment..... 3. 1. 16
 - Regional Planning and Development..... 1. 1. 12, 1. 1. 27, 1. 4. 10, 3. 1. 66
 - State Development Commissions..... 1. 1. 12
- Education (See also Vocational Education)
 - Adult Education..... 1. 3. 13, 1. 3. 48, 3. 1. 86
 - Apprenticeship (See Apprenticeship)
 - College (See College Graduates; College Students)
 - Economic Return..... 2. 2. 15
 - Engineering..... 1. 3. 47
 - High School (See Dropouts, High School)
 - In South, Impact of..... 1. 3. 25
 - International Comparison..... 1. 3. 54
 - Long-Term Unemployed..... 3. 1. 75
 - Mentally Retarded..... 1. 1. 01
 - Minority Groups..... 1. 3. 06, 2. 1. 13, 3. 2. 31
 - Occupation, Relation to..... 2. 3. 10
 - Occupational Mobility..... 1. 3. 13, 1. 3. 25, 1. 3. 52, 1. 4. 39, 2. 2. 08, 2. 3. 10
 - School-to-Work Transition (See Youth, School-to-Work Transition)
 - Social Mobility..... 1. 3. 06
 - Social Work..... 1. 3. 50
 - Teachers (See Public School Teachers; College Teachers, Placement)
 - Employer Policies (See also specific policy items)... 1. 1. 06

CODE NUMBER

- Employment (See also Unemployed, Unemployment, Unemployment Rates; Labor Force Participation; Underemployment)
 Blue-Collar (See Blue-Collar Employment)
 College Graduates (See College Graduates, Employment)
 Concentrated Employment Program (See Concentrated Employment Program)
 Construction Industry..... 1. 1. 21, 2. 2. 05
 Defense Contracting (See Defense Industries)
 Employer Policies, Effect..... 1. 1. 06
 Ex-Offenders..... 1. 1. 29, 1. 4. 30
 Expanding Employment..... 1. 1. 12, 3. 1. 17, 3. 2. 46
 Farmworkers..... 1. 1. 51, 1. 4. 33
 Ghetto Areas..... 1. 3. 56,
 1. 4. 08, 1. 4. 36, 3. 1. 44, 3. 2. 13
 Handicapped, Assistance.... 1. 1. 01, 1. 1. 12, 1. 1. 18
 Low-Income Groups (See also Low-Income Groups)..... 3. 1. 44
 Low-Wage Employment..... 3. 2. 20
 Negroes..... 1. 1. 13,
 1. 1. 26, 1. 1. 44, 1. 2. 01, 1. 2. 06, 1. 3. 20, 1. 3. 46,
 1. 3. 68, 2. 1. 19, 2. 1. 20, 3. 1. 16
 Older Workers (See Older Workers)
 Opportunities, Perception of..... 1. 3. 20,
 1. 4. 06, 1. 4. 17, 1. 4. 34, 2. 2. 04, 3. 2. 30
 Opportunity Matrix..... 1. 1. 12
 Posttraining (See Training and Retraining, Posttraining Employment and Unemployment)
 Projections, Trends..... 1. 1. 12,
 1. 4. 25, 2. 1. 07, 2. 3. 03, 3. 1. 81
 Technological Change..... 1. 4. 10, 3. 1. 23, 3. 1. 65
 White-Nonwhite Comparison..... 1. 3. 68
 Women (See Women Workers)
 Working Conditions (See Working Conditions)
 Youth (See Youth, Employment and Unemployment)
 Employment Discrimination (See also Discrimination)..... 1. 3. 68, 2. 1. 22
 Apparel Industry..... 1. 3. 20
 Civil Rights Act of 1964..... 2. 1. 20
 Community Factors..... 1. 3. 46
 Employment Agencies..... 1. 4. 32
 Entry-Level Jobs..... 1. 3. 46
 Equal Employment Opportunity..... 3. 1. 43
 Hiring Standards and Practices..... 1. 1. 45
 Professional Occupations..... 1. 4. 06
 Railroad Operating Crafts..... 1. 3. 05
 Reduction Techniques..... 3. 2. 01
 Women..... 1. 4. 06
 Employment Information (See Employment Services)
 Employment Services (See also Job Placement; Counseling and Guidance)
 Additional Services, Value..... 1. 1. 50
 Adequacy of Services..... 1. 4. 02
 College Teachers, Placement Services..... 3. 1. 63
 Concentrated Employment Program (See Concentrated Employment Program)

CODE NUMBER

- Employment Services—Continued
 Discrimination, Employment Agencies..... 1. 4. 32
 Educational Institutions, Relationship with. 1. 1. 07,
 1. 1. 16, 1. 4. 02
 European..... 1. 1. 12, 3. 1. 24
 Handicapped Workers:..... 1. 1. 01, 1. 1. 12, 1. 1. 18
 Matching Men and Jobs..... 1. 1. 16, 1. 2. 05, 3. 2. 22
 Private Agencies..... 1. 1. 07, 1. 4. 02, 1. 4. 32
 Public Agencies..... 1. 1. 07, 1. 4. 02, 3. 1. 24
 School Placement Services... 1. 1. 07, 1. 3. 20, 1. 4. 02
 Engineers (See also Scientists; Professional Occupations)
 Aerospace Industry..... 3. 1. 74
 Attitudes, New Workers..... 1. 4. 01
 College Students..... 1. 3. 47
 Demand..... 1. 1. 22
 Information Personnel..... 3. 1. 04
 Job Obsolescence..... 1. 3. 08, 3. 1. 18
 Job Satisfaction..... 1. 4. 28
 Layoffs..... 1. 3. 08, 3. 1. 74
 Occupational Patterns..... 1. 3. 57, 1. 4. 27, 1. 4. 28
 Professionalism..... 2. 3. 11
 Projections..... 1. 1. 22
 Technicians..... 1. 1. 25
 Training and Retraining..... 1. 3. 47, 3. 1. 18
 Unemployment and Reemployment.. 1. 3. 08, 3. 1. 74
 Women..... 1. 4. 27
 England (See Great Britain, Manpower Development Programs)
 Entry-Level Jobs (See also New Workers; Youth, School-to-Work Transition)
 Access to..... 1. 3. 46
 Projections, Demand..... 1. 3. 14
 White-Nonwhite Comparisons..... 1. 1. 23,
 1. 3. 20, 1. 3. 46
 Environmental Health Manpower..... 1. 2. 06
 Ethnic Groups (See also Minority Groups)..... 1. 4. 04
 Europe (See International Manpower Studies)
 Ex-Offenders (See also Crime and Offenders).... 1. 1. 29,
 1. 4. 30

F

- Factory Workers (See also Blue-Collar Workers).. 1. 4. 01
 Family (See Marriage and Family)
 Farmworkers (See also Rural Areas)
 Alternative Employment..... 1. 1. 31,
 1. 4. 07, 2. 1. 15, 2. 3. 04, 2. 3. 05
 Bracero Agreement..... 1. 3. 11, 1. 3. 42
 Capital-Labor Substitution..... 1. 1. 17,
 1. 1. 32, 1. 3. 12, 2. 3. 04, 2. 3. 05
 Dairy Industry..... 2. 3. 04
 Earnings..... 1. 1. 17, 1. 3. 42
 Employment and Unemployment.... 1. 1. 51, 1. 4. 33
 Labor-Management Relations..... 1. 2. 06,
 1. 3. 11, 2. 3. 05, 3. 2. 07
 Labor Supply and Demand..... 1. 1. 51,
 1. 1. 61, 1. 3. 11, 1. 3. 42, 2. 3. 04
 Mechanization (See Farmworkers, Capital-Labor Substitution)
 Mexicans and Mexican Americans..... 1. 1. 31,
 1. 1. 61, 1. 3. 11, 1. 3. 42, 2. 3. 05

	CODE NUMBER
Farmworkers—Continued	
Migratory, Family-Unit Adaptation.....	1. 3. 51
Migratory, Resettlement....	1. 1. 31, 1. 4. 07, 2. 3. 05
Migratory, Social Organization.....	1. 4. 07, 2. 3. 05, 3. 2. 09
Negroes.....	1. 4. 07, 2. 3. 05
Productivity.....	1. 4. 29, 2. 3. 04
Technicians, Recruitment.....	1. 1. 61
Working Conditions.....	1. 3. 11, 1. 4. 07, 1. 4. 29, 1. 4. 33
Federal Manpower Development Programs (See Manpower Development Programs)	
Forecasting (See Projections)	
Foreign Labor (See International Manpower Studies)	
Foremen (See Supervisors, Managers)	
Foundries Industry.....	3. 1. 65

G

Geographic Mobility (See Migration)	
Ghetto Areas (See also Low-Income Groups)	
Aging Residents.....	1. 1. 12
Commuting Patterns.....	1. 1. 63, 1. 3. 56
Consumer Behavior.....	1. 2. 06
Employment and Unemployment.....	1. 3. 56, 1. 4. 08, 1. 4. 36, 1. 5. 09, 3. 1. 44, 3. 2. 13
Employment Opportunities.....	1. 5. 09
Entry-Level Jobs, Access to.....	1. 3. 46
Job Placement.....	1. 1. 07, 1. 4. 17
Labor Force Participation.....	1. 1. 12, 1. 3. 49, 1. 3. 56, 1. 4. 36, 3. 2. 13
Mass Transportation.....	1. 1. 63
Migration (See Migration; Negro Migration)	
Occupational Choice.....	1. 4. 23
Plant Relocation.....	1. 1. 07
Small Business.....	2. 3. 09
Training Programs.....	1. 3. 59, 1. 5. 09
Underemployment, Identification of.....	3. 2. 13
Youth (See Negro Youth; Youth)	
Government, Local.....	1. 1. 11, 1. 1. 14, 1. 5. 09, 2. 1. 03
Government, State.....	1. 1. 11
Great Britain, Manpower Development Programs	
	1. 3. 66, 3. 1. 58
Group Counseling (See Counseling and Guidance, Group Counseling)	
Guidance (See Counseling and Guidance)	

H

Handicapped Workers (See also Disadvantaged Workers)	
Blind.....	1. 4. 05
Employment Assistance.....	1. 1. 01, 1. 1. 12, 1. 1. 18
European Experience.....	1. 1. 12
Mentally Retarded.....	1. 1. 01, 1. 1. 18
Program Needs.....	1. 1. 44
Underemployment.....	1. 2. 07
Hard-Core Unemployed (See Long-Term Unemployed)	
Health and Safety Aspects, Automation.....	3. 1. 32

	CODE NUMBER
Health Services.....	1. 2. 05
Availability of Services.....	1. 2. 04, 1. 2. 06
Collective Bargaining.....	1. 2. 06
Hiring Standards and Practices.....	1. 4. 24
Military Medical Personnel.....	1. 1. 39
Nurses.....	1. 1. 12, 1. 1. 25, 1. 2. 02, 1. 3. 15, 1. 3. 77
Physicians.....	1. 1. 12, 1. 1. 71, 1. 3. 02, 1. 3. 04
Psychiatrists.....	1. 1. 12, 1. 3. 04
Recruitment.....	1. 1. 25, 1. 3. 18
Shortage Occupations.....	1. 1. 12, 1. 1. 25, 1. 3. 77, 1. 4. 24
Technicians, Medical.....	1. 1. 12, 1. 1. 25, 1. 1. 47, 1. 3. 15, 1. 3. 18, 1. 4. 24
Training.....	1. 1. 25, 1. 3. 15
Utilization.....	1. 1. 12, 1. 1. 71
Wage Rates.....	1. 1. 12, 1. 4. 24
Women Workers.....	1. 1. 12, 1. 1. 25, 1. 1. 70, 1. 1. 71, 1. 2. 02, 1. 3. 02, 1. 3. 15, 1. 3. 18, 1. 3. 77
High School Dropouts (See Dropouts, High School)	
Hiring Standards and Practices (See also Employ- ment Services; Promotion; Recruitment)	
Automated vs. Nonautomated Jobs.....	1. 1. 08
Commuter Aliens.....	1. 3. 35
Costs to Employer.....	1. 1. 40, 1. 1. 53
Disadvantaged Workers.....	1. 1. 45
Experienced vs. Inexperienced.....	1. 3. 22
Health Services.....	1. 4. 24
Labor Market Effect.....	1. 1. 06, 1. 1. 19, 1. 3. 35
Public School Teachers.....	1. 3. 32
Shortage Occupations.....	1. 1. 19, 1. 1. 25
Technological Change.....	1. 1. 08
Homemakers (See Women Workers; Working Mothers)	
Hotel Industry.....	1. 2. 06
Household Surveys.....	1. 1. 36

I

Immigration	
Braceros.....	1. 3. 11, 1. 3. 42
"Brain Drain," Developing Nations.....	1. 2. 05
Commuter Aliens.....	1. 1. 61, 1. 3. 35
Cuban Refugees.....	1. 3. 27, 1. 3. 60
Unemployment Rates.....	1. 4. 35
Income (See Earnings, Income, Wages)	
India, Comparative Study.....	1. 3. 75
Indians, American (See American Indians)	
Industrial Injuries	
Automated Industry.....	3. 1. 32
Crane Handling.....	1. 4. 22
Industrial Relations (See Collective Bargaining; Labor-Management Relations)	
Industrial Relations Centers.....	1. 4. 16
Industry Studies	
Aerospac.....	3. 1. 07, 3. 1. 74
Agriculture (See Farmworkers; Rural Areas)	
Aircraft.....	1. 1. 08
Apparel.....	1. 3. 30, 1. 3. 35
Bookbinding.....	1. 2. 06, 2. 3. 08, 3. 1. 07

C. Index of Research Subjects

CODE NUMBER

Industry Studies—Continued

- Citrus Fruit..... 1. 1. 17
- Coal Mining..... 1. 3. 28, 1. 4. 10, 2. 1. 06
- Construction (See Construction Industry)
- Dairy..... 2. 3. 04
- Defense..... 1. 1. 15, 1. 1. 43, 1. 3. 08, 3. 2. 03
- Foundries..... 3. 1. 65
- Government, Local and State..... 1. 1. 11,
1. 1. 14, 1. 5. 09, 2. 1. 03
- Health Services (See Health Services)
- Hotels..... 1. 2. 06
- Maritime..... 1. 3. 21, 2. 2. 02, 2. 2. 12
- Nuclear..... 3. 1. 20
- Railroads..... 1. 3. 05, 2. 3. 03
- Retail Trade..... 1. 3. 52, 1. 3. 72
- Services..... 1. 3. 14, 1. 3. 72
- Steel..... 1. 1. 12, 1. 3. 58, 3. 1. 07
- Warehousing..... 3. 1. 79
- Inflation, effect on Income Distribution..... 1. 3. 29
- Information Science
 - Computerized Job Matching. 1. 1. 16, 1. 2. 05, 3. 2. 22
 - Manpower Requirements..... 3. 2. 18
- Information Services (See also Employment Services)
 - Engineering Information Personnel..... 3. 1. 04
 - Industrial Relations Information Services.... 1. 4. 16
- Inner City (See Ghetto Areas)
- Institutional Training (See Vocational Education; Training and Retraining)
- Insurance
 - Health Insurance, Coverage during Layoffs.. 3. 1. 40
 - Unemployment Insurance..... 1. 4. 14, 2. 1. 02
 - Workmen's Compensation, Claims Handling. 1. 4. 22
- Integration, Railroad Crafts..... 1. 3. 05
- International Manpower Studies
 - Apprenticeship..... 1. 1. 12, 1. 1. 28, 2. 1. 09, 3. 1. 33
 - "Brain Drain," Developing Nations..... 1. 2. 05
 - Compulsory Training Laws..... 2. 1. 09
 - Developing Nations..... 1. 2. 05
 - Education of Professional, Technical, Managerial Workers..... 1. 3. 54
 - Employment and Unemployment..... 1. 1. 12,
1. 3. 07, 1. 3. 75, 1. 4. 35, 2. 1. 06
 - Employment Services, Public..... 3. 1. 24
 - Great Britain, Manpower Development Programs..... 1. 3. 66, 3. 1. 58
 - Income Comparison, India vs. U.S..... 1. 3. 75
 - Job Standards..... 3. 1. 43
 - Labor Mobility..... 3. 1. 35
 - Labor Unions, Manpower Planning Role.... 1. 4. 40
 - Long-Term Unemployed..... 1. 1. 12
 - Maintenance Workers, Automated Plants.... 2. 1. 05
 - Occupational Structure..... 1. 3. 54
 - OECD Countries..... 1. 4. 13
 - Redundancy..... 2. 1. 06
 - School-to-Work Transition..... 1. 1. 12, 1. 1. 28
 - Technological Change, Social Aspects..... 3. 1. 32
 - Training and Retraining..... 1. 1. 28,
1. 3. 66, 1. 3. 75, 2. 1. 05, 2. 1. 06, 2. 1. 09, 3. 1. 08,
3. 1. 43, 3. 1. 58
 - Youth..... 1. 1. 12, 1. 1. 28, 1. 4. 35

CODE NUMBER

Interviewing and Questionnaires (See also Methodology)

- Household Surveys..... 1. 1. 36
- Interviewer Characteristics, Effect..... 2. 2. 10
- Iowa..... 1. 2. 02

J

- Japanese (See Chinese and Japanese Americans)
- Job-Bank Concept, Domestics..... 1. 3. 36
- Job Content (See also Skill Requirements; Working Conditions)..... 3. 1. 28
 - Aircraft Industry..... 1. 1. 08
 - Automated Jobs..... 3. 1. 31
 - Automated vs. Nonautomated Jobs..... 1. 1. 08
 - Changing, Impact on Vocational Education.. 1. 1. 03
 - Law Enforcement and Correctional Officers.. 2. 3. 12
 - Man-Machine Relationship..... 2. 2. 07
 - Occupational Classification..... 1. 1. 10,
1. 1. 19, 1. 1. 20, 1. 1. 62
 - Redesign, Older Workers..... 3. 1. 42
 - Technological Change..... 1. 1. 05,
1. 1. 08, 1. 1. 35, 2. 2. 07, 3. 1. 07
- Job Discrimination (See Employment Discrimination)
- Job Displacement (See Capital-Labor Substitution, Farmworkers)
- Job Information (See Employment Services)
- Job Market (See Labor Supply and Demand; Labor Market Area)
- Job Obsolescence (See also Job Content; Technological Change)
 - Law Enforcement and Correctional Officers.. 2. 3. 12
 - Scientists and Engineers..... 1. 3. 08, 3. 1. 18
- Job Placement (See also Employment Services)
 - College Teachers..... 3. 1. 63
 - Ghetto Residents..... 1. 1. 07, 1. 4. 17
 - Hiring Standards (See Hiring Standards and Practices)
 - Job-Bank Concept, Domestics..... 1. 3. 36
 - Matching Men and Jobs..... 1. 1. 16, 1. 2. 05, 3. 2. 22
 - Older Workers..... 1. 4. 31
 - Plant Relocation, Effect..... 1. 1. 07
 - Shortage Occupations..... 1. 1. 25
 - Youth..... 1. 3. 20, 1. 4. 17
- Job Redesign (See also Hiring Standards and Practices; Job Content; Technological Change)
 - Older Workers..... 3. 1. 42
- Job Satisfaction (See also Working Conditions)
 - Automated vs. Non-Automated Jobs..... 1. 1. 08,
2. 2. 07
 - Blue-Collar Workers..... 1. 3. 73
 - Ghetto Residents..... 1. 4. 23
 - Isolated Worksite..... 2. 2. 12
 - New Careers Program..... 1. 5. 07
 - Parolees..... 1. 1. 29
 - Public School Teachers..... 1. 3. 16
 - Scientists and Engineers..... 1. 4. 28
 - Technological Change..... 1. 1. 08, 2. 2. 07
 - Work and Nonwork..... 1. 3. 73
- Job Skills (See Skill Requirements)

- CODE NUMBER
- Job Titles (See Job Content, Occupational Classification)
- Job Vacancies, Measurement..... 1. 1. 40, 3. 1. 54
- Jobseeking (See also Employment Services; Job Placement)..... 1. 1. 50, 3. 1. 85
- Community Factors..... 1. 3. 46
- Farmworkers, Migratory..... 1. 4. 07
- Military Personnel, Former..... 2. 2. 03
- Negroes..... 1. 1. 46, 1. 2. 04
- Parolees..... 1. 1. 29
- Public School Teachers..... 1. 3. 32
- White-Nonwhite Comparisons..... 1. 1. 23, 1. 2. 04, 1. 3. 20, 1. 3. 46, 2. 3. 06
- Youth..... 1. 1. 23, 1. 1. 38, 1. 1. 46
- Juvenile Delinquents..... 1. 3. 46, 1. 4. 17
- L
- Labor Force Participation (See also Employment; Unemployed, Unemployment, Unemployment Rates; Underemployment; individual entries for specific groups)
- American Indians..... 1. 3. 43
- Child Bearing..... 1. 1. 09
- Disadvantaged Workers..... 1. 3. 49, 1. 3. 56
- Economic Factors..... 1. 3. 17, 1. 4. 37
- Farmworkers (See Farmworkers)
- Ghetto Areas..... 1. 1. 12, 1. 3. 49, 1. 3. 56, 1. 4. 36, 3. 2. 13
- Low-Income Groups..... 1. 3. 19, 1. 3. 49, 1. 3. 56, 2. 1. 15, 3. 2. 13
- Migrants..... 1. 3. 25
- Negroes..... 1. 3. 49, 1. 4. 36
- Nonparticipants..... 1. 1. 44, 1. 3. 49, 1. 4. 36, 3. 1. 27, 3. 1. 30, 3. 2. 13
- Older Workers..... 1. 1. 12, 1. 1. 49, 1. 2. 02
- Reentry, Women..... 1. 1. 69
- School-to-Work Transition (See Youth, School-to-Work Transition)
- Wage Levels, Effect..... 1. 3. 33, 1. 4. 37
- Welfare Payments, Effect..... 1. 3. 19
- Women Workers..... 1. 1. 09, 1. 1. 49, 1. 1. 69, 1. 3. 03, 1. 3. 19, 1. 3. 44, 1. 4. 27, 3. 1. 57
- Youth..... 1. 1. 12, 1. 1. 13, 1. 2. 04
- Labor Legislation (See Legislation, Labor)
- Labor-Management Relations (See also Collective Bargaining; Labor Unions)
- Agriculture..... 1. 3. 11, 2. 3. 05, 3. 2. 07
- Arbitrators..... 1. 2. 02
- Joint Management-Union Committees..... 2. 2. 14
- Technological Change, Adjustment to..... 1. 4. 26, 2. 2. 14
- Labor Market Area (See also Labor Supply and Demand)
- Commuting as Factor in Equalizing Unemployment..... 1. 4. 09
- Employment Services in..... 1. 1. 07
- Internal Labor Market..... 1. 1. 19, 3. 1. 29
- Job Vacancies in..... 1. 1. 40
- Systems Analysis..... 1. 1. 55, 1. 1. 60

- CODE NUMBER
- Labor Mobility (See also Occupational Mobility)
- International Comparison..... 3. 1. 35
- Pensions, Effect..... 2. 2. 02, 3. 1. 38
- Severance Pay, Effect..... 3. 1. 37
- Labor Reserve..... 3. 1. 12
- Labor Shortages (See also Labor Supply and Demand; Shortage Occupations; individual entries for specific occupations)
- Concurrent Unemployment..... 1. 1. 25, 1. 5. 09
- Construction Industry..... 1. 1. 21, 1. 3. 23, 1. 4. 03
- Job-Bank Concept, Domestic..... 1. 3. 36
- Labor Supply and Demand (See also Labor Market Area; Labor Shortages)
- Apprentices..... 2. 1. 21
- College Graduates..... 2. 2. 04, 3. 1. 22
- College Teachers..... 3. 1. 63
- Construction Industry..... 1. 1. 21, 1. 3. 23, 1. 4. 03
- Employer Practices, Effect..... 1. 1. 06, 1. 1. 19
- Farmworkers..... 1. 1. 51, 1. 1. 61, 1. 3. 11, 1. 3. 42, 2. 3. 04
- Labor Reserve..... 3. 1. 12
- Marginal Workers..... 1. 1. 12, 1. 3. 22
- New Plants, Effect..... 1. 3. 01
- Nurses..... 1. 2. 02, 1. 3. 77
- Professional Occupations..... 2. 2. 04
- Projections..... 1. 3. 14, 1. 4. 03, 1. 4. 20, 1. 4. 25, 2. 1. 07, 3. 1. 26, 3. 1. 53
- Retail Trade Industry..... 1. 3. 52
- Scientists and Engineers..... 1. 1. 22
- Steel Industry..... 1. 3. 58
- Technicians..... 1. 1. 22, 3. 1. 26
- Theoretical Models..... 1. 1. 12, 1. 2. 02, 1. 3. 24, 1. 3. 52, 1. 4. 21, 1. 4. 25
- Unskilled Workers..... 3. 2. 21
- Labor Turnover
- Isolated Work Site..... 2. 2. 12
- Manufacturing and Mining Industries..... 1. 3. 28
- Nurses..... 1. 2. 02
- Public School Teachers..... 1. 3. 16, 1. 3. 32
- Labor Unions (See also Collective Bargaining; Labor-Management Relations)
- Arbitrators..... 1. 2. 02
- Farmworkers..... 1. 3. 11
- Manpower Planning Role..... 1. 4. 26, 1. 4. 40
- Maritime Industry..... 1. 3. 21, 2. 2. 02
- Railroad Operating Crafts, Integration..... 1. 3. 05
- Technological Change, Adjustment to..... 1. 4. 26, 2. 2. 14
- Training Programs..... 1. 3. 21, 2. 2. 02
- Unemployment, Response to..... 1. 4. 26
- Wage-Hour Standards, European..... 2. 1. 09
- Work Rules..... 1. 3. 58
- Law Enforcement Officers, Training Needs..... 2. 3. 12
- Lawyers..... 1. 4. 06
- Layoffs
- Defense Contract Termination..... 1. 3. 08, 3. 2. 03
- Health Insurance Coverage during..... 3. 1. 40
- Scientists and Engineers..... 1. 3. 08, 3. 1. 74
- Legislation, Labor
- Bracero Agreement..... 1. 3. 11, 1. 3. 42
- Civil Rights Act of 1964..... 2. 1. 20
- Compulsory Training Laws, European..... 2. 1. 09

CODE NUMBER

- Legislation, Labor—Continued**
 Industrial Training Act (Great Britain).... 1. 3. 66,
 3. 1. 58
 Manpower Implications..... 1. 1. 43, 1. 1. 44
Leisure-Work Allocation..... 1. 2. 04
Libraries
 Industrial Relations Centers..... 1. 4. 16
 Manpower Requirements..... 3. 2. 18
 Women, Employment Opportunities..... 1. 1. 70
Licensing, Occupational..... 1. 1. 33, 2. 3. 01
Literacy Training..... 1. 3. 48, 3. 1. 86
Local Government (See Government, Local)
Long-Term Unemployed
 Characteristics..... 1. 1. 53, 1. 4. 15, 2. 2. 11
 Counseling and Guidance.... 1. 1. 53, 1. 1. 63, 1. 5. 05
 Educational Rehabilitation..... 3. 1. 75
 Employment Opportunities..... 1. 1. 19
 European..... 1. 1. 12
 Mobility..... 1. 4. 15
 Motivations..... 2. 2. 11
 Posttraining Employment and Unemploy-
 ment..... 2. 3. 13
 Public Assistance..... 1. 1. 53
 Recruitment..... 1. 5. 05
 Training and Retraining..... 1. 1. 53,
 1. 4. 15, 1. 5. 05, 2. 3. 13
 Work Orientation..... 1. 1. 53, 1. 1. 65, 1. 5. 05
**Low-Income Groups (See also Earnings, Income,
 Wages)**..... 3. 2. 27
 Employment and Unemployment..... 3. 1. 44
 Employment Opportunities, Perception of... 3. 2. 30
 Labor Force Participation..... 1. 3. 19,
 1. 3. 49, 1. 3. 56, 2. 1. 15, 3. 2. 13
 Low-Wage Employment..... 3. 2. 20
 Migrants, Rural-Urban (See Migration, Rural-
 Urban)
 Occupational Choice..... 1. 4. 23
 Poverty, Culture of..... 1. 3. 41, 1. 3. 65
 Program Needs..... 1. 1. 44
 Social Mobility..... 1. 3. 41
 Transportation, Mass..... 1. 1. 63
 Working Poor..... 3. 2. 27

M

- Maine..... 1. 2. 03
Maintenance Workers
 Automated Plants, Training, European..... 2. 1. 05
 Technological Change, Adjustment to. 2. 1. 05, 3. 1. 29
Management Policies (See specific policy items)
Managers (See Supervisors, Managers)
Man-Machine Relationship..... 2. 2. 07
Manpower Adjustment, Systems Analysis..... 1. 1. 60
Manpower Development Programs
 Apprenticeship (See Apprenticeship)
 Communities, Economically Stagnant..... 1. 4. 04
 Community Receptivity..... 1. 4. 19
 Concentrated Employment Program (See
 Concentrated Employment Program)

CODE NUMBER

- Manpower Development Programs—Continued**
 Cost-Benefit Analyses (See Cost-Benefit
 Analyses)
 Counseling (See Counseling and Guidance)
 Effectiveness (See Training and Retraining,
 posttraining entries)
 Government, Local..... 1. 5. 09
 Great Britain..... 1. 3. 66, 3. 1. 58
 Local Efforts..... 1. 1. 27, 1. 4. 17, 1. 4. 19, 2. 1. 17
 Management Attitudes (See Supervisors,
 Managers, Attitudes toward Training)
 Model Neighborhood..... 2. 1. 17
 Neighborhood Youth Corps (See Neighbor-
 hood Youth Corps)
 New Careers Program..... 1. 5. 07
 On-the-Job Training (See On-the-Job Train-
 ing)
 Regional Efforts..... 1. 1. 27
 Training and Retraining (See Training and
 Retraining)
 Youth (See Youth; Youth Opportunity
 Centers)
Manpower Policy Planning
 Conferences..... 1. 1. 52, 2. 1. 16, 3. 1. 22
 Defense Spending, Manpower Implications. 1. 1. 15,
 1. 1. 43
 International Comparisons, European..... 1. 3. 66,
 1. 4. 13, 1. 4. 35, 1. 4. 40, 3. 1. 58
 Labor Unions, Role..... 1. 4. 26, 1. 4. 40
 Legislation (See Legislation, Labor)
 National Goals and Priorities..... 1. 1. 41,
 1. 1. 43, 1. 1. 44, 2. 1. 14
 Private Industry..... 1. 1. 06, 1. 4. 20
 Research Needs and Priorities..... 1. 1. 41,
 1. 1. 52, 2. 1. 16
 Systems Analysis..... 1. 1. 55, 1. 1. 60
 Technological Change..... 1. 1. 12,
 1. 4. 10, 1. 4. 25, 2. 2. 14
 Theoretical Models (See also Theoretical
 Models)..... 1. 1. 12, 1. 1. 60
 Women Workers..... 1. 1. 69
Manpower Projections (See Projections)
Manpower Research..... 3. 1. 22
 Interviews, Questionnaires (See Interviewing
 and Questionnaires)
 Methodology (See Methodology)
 Needs and Priorities..... 1. 1. 41, 1. 1. 52, 2. 1. 16
 Projections (See Projections)
 Research Workshops..... 1. 1. 52, 2. 1. 12
 Theoretical Models (See Theoretical Models)
Manpower Research University Workshops..... 1. 1. 52
**Manpower Utilization (See also Underemploy-
 ment)**
 College Graduates..... 3. 2. 10, 3. 2. 14
 Construction Industry..... 1. 1. 21, 1. 4. 03
 Health Manpower..... 1. 1. 12, 1. 1. 71
 Information and Library Sciences..... 3. 2. 18
 Job Performance Aids, Impact on..... 3. 1. 69
 Supervisors, Managers..... 2. 2. 08
 Women..... 1. 4. 38

	CODE NUMBER
Marginal Workers and Occupations (See also Underemployment)	
Economic Analysis.....	1. 1. 12
Handicapped Workers (See Handicapped Workers)	
Job Satisfaction.....	2. 2. 12
Labor Force Attachment.....	1. 1. 12
Low-Wage Employment.....	3. 2. 20
Minimum Wage, Effect.....	1. 3. 09, 1. 3. 22
Minority Groups.....	1. 1. 12
Older Workers.....	1. 1. 12, 1. 3. 09, 1. 3. 18
Social Marginality, Relationship to.....	1. 3. 18
Women.....	1. 1. 12, 1. 3. 18
Youth.....	1. 1. 12, 1. 3. 18
Maritime Industry	
Manpower Resources.....	2. 2. 02
Training, Labor Union Sponsored....	1. 3. 21, 2. 2. 02
Worker Motivation and Dissatisfaction.....	2. 2. 12
Marriage and Family (See also Women Workers; Working Mothers)	
Aid to Families with Dependent Children..	1. 3. 19
Child Bearing.....	1. 1. 09, 1. 4. 27
Child Day Care.....	1. 1. 44, 1. 1. 68
Child Spacing.....	3. 1. 11
Consumer Behavior.....	1. 2. 06
Family Composition.....	1. 3. 44
Migrant Families.....	1. 3. 51, 1. 3. 63
Poverty, Culture of.....	1. 3. 41, 1. 3. 65
Women, Career Conflicts.....	1. 3. 03, 1. 3. 44, 1. 4. 18, 1. 4. 27, 1. 4. 38
Matching Men and Jobs.....	1. 1. 16, 1. 2. 05, 3. 2. 22
Mathematical Models (See Theoretical Models)	
MDTA Training Programs (See Manpower Development Programs; individual entries for specific programs)	
Medical Manpower (See Health Services)	
Mentally Retarded, Employment Assistance (See also Handicapped Workers).....	1. 1. 01, 1. 1. 18
Methodology	
Data Gathering.....	1. 1. 20, 1. 1. 40, 1. 1. 62, 3. 1. 61
Forecasting (See Projections)	
Interviews (See Interviewing and Questionnaires)	
Mathematical Models (See Theoretical Models)	
Projections (See Projections)	
Research Workshops.....	1. 1. 52, 2. 1. 12
Theoretical Models (See Theoretical Models)	
Mexican and Mexican American Workers (See also Minority Groups)	
Bracero Agreement.....	1. 3. 11, 1. 3. 42
Commuter Aliens, Impact.....	1. 1. 61, 1. 3. 35
Employment Discrimination.....	2. 1. 22
Farmworkers, Migratory.....	1. 1. 61, 1. 3. 11, 1. 3. 42, 2. 3. 05
Farmworkers, Migratory, Resettlement....	1. 1. 31, 2. 3. 05
Migration, Intra-City.....	1. 3. 61
Small Business Proprietorship.....	2. 3. 09
Miami, Fla.....	1. 3. 60

	CODE NUMBER
Michigan.....	1. 3. 42, 3. 1. 66
Migration (See also Commuting; Farmworkers, Migratory)	
Adjustment of Migrants.....	1. 1. 04, 1. 3. 25, 1. 3. 26, 1. 4. 39, 3. 2. 04
Chinese and Japanese Americans.....	1. 3. 61
College Graduates.....	1. 2. 03
Inter-City.....	1. 3. 63
Inter- and Intra-State.....	1. 3. 32, 1. 4. 12
Intra-City.....	1. 3. 61, 1. 4. 39
Long-Term Unemployed.....	1. 4. 15
Mexican Americans (See Mexican and Mexican American Workers)	
Negroes (See Negro Migration)	
Public School Teachers.....	1. 3. 32
Return Migration.....	1. 4. 39
Rural-Urban..	1. 1. 04, 1. 3. 26, 1. 4. 39, 1. 5. 12, 3. 2. 04
South, The Out-Migration	1. 1. 04, 1. 3. 25, 1. 3. 26, 1. 4. 39, 3. 2. 04
Spanish Surname, Persons of.....	1. 3. 61
Underemployment.....	1. 2. 03
Migratory Workers (See Farmworkers, Migratory)	
Military Personnel, Former	
Medical Personnel.....	1. 1. 39
Occupational Transferability to Civilian Employment.....	1. 1. 02, 1. 1. 29, 2. 2. 03, 3. 1. 06
Minimum Wage	
Labor Force Composition.....	1. 3. 09
Marginal Workers.....	1. 3. 09, 1. 3. 22
Mining (See also Coal Mining)	
Labor Turnover.....	1. 3. 28
Minority Groups (See also individual entries for specific minorities)	
Apprenticeship.....	2. 1. 21, 3. 1. 83
Civil Rights Act of 1964.....	2. 1. 20
Counseling and Guidance....	1. 1. 66, 1. 3. 20, 1. 4. 32
Dialect Remediation.....	2. 1. 18
Education.....	1. 3. 06, 2. 1. 13, 3. 1. 92, 3. 2. 31
Employment and Unemployment (See Negroes, Employment and Unemployment)	
Employment Discrimination (See Employment Discrimination)	
Employment Opportunities.....	3. 1. 16
European Experience.....	1. 1. 12
Hiring Standards and Practices.....	1. 1. 45
Job Market, Cuban Refugees.....	1. 3. 27, 1. 3. 60
Marginal Workers.....	1. 1. 12
Migration (See also Negro Migration; Mexican and Mexican American Workers)....	1. 3. 61
Occupational Mobility.....	1. 4. 06
Occupational Patterns.....	2. 1. 19
School-to-Work Transition (See Negro Youth, School-to-Work Transition)	
Small Business Proprietorship.....	1. 3. 06, 2. 3. 09
Social Mobility.....	1. 3. 06, 1. 4. 06
Training and Retraining.....	1. 1. 23, 1. 1. 66, 1. 2. 01, 1. 3. 43, 2. 1. 21, 2. 2. 09, 3. 1. 92
Training Needs, Conferences.....	2. 1. 21, 3. 1. 92
Mississippi.....	1. 4. 12, 1. 4. 35

CODE NUMBER

Mobility

- Age-Group Comparisons..... 1. 1. 49
- Economic..... 1. 3. 40
- Geographic (See Migration)
- Occupational (See Occupational Mobility)
- Pensions, Effect..... 2. 2. 02, 3. 1. 38
- Social (See Social Mobility)
- Model Neighborhood, Manpower Planning..... 2. 1. 17
- Models (See Theoretical Models)
- Motivation (See also Attitudes; individual entries for specific groups)
 - Blue-Collar Workers..... 1. 3. 73, 1. 4. 01
 - Engineers..... 1. 4. 01
 - Learning, Aptitudes for..... 2. 1. 10
 - Long-Term Unemployed..... 2. 2. 11
 - Maritime Workers..... 2. 2. 12
 - New Workers..... 1. 4. 01, 1. 3. 18
 - Students, Social Work..... 1. 3. 50
 - Tests of..... 1. 2. 03, 2. 1. 10
 - Trainees..... 1. 1. 64, 3. 1. 73

N

- National Alliance of Businessmen..... 1. 2. 01
- National Defense (See Defense Industries)
- National Goals and Priorities..... 1. 1. 41, 1. 1. 43, 1. 1. 44, 2. 1. 14

Negro Migration

- Economic Impact..... 1. 3. 38
- Farmworkers..... 1. 4. 07, 2. 3. 05
- Intra-City..... 1. 3. 61
- Migrants, Characteristics..... 1. 2. 05
- Occupational Adjustment..... 1. 1. 04
- Occupational Patterns..... 2. 1. 19
- Policy Implications..... 1. 3. 78
- Public Assistance, Effect of..... 1. 3. 38

Negro Youth (See also Youth)

- Aspirations, Career..... 2. 1. 16, 3. 1. 84
- Attitudes toward Work..... 1. 1. 23, 1. 5. 11
- College Graduates..... 1. 2. 01, 2. 1. 13, 3. 2. 10, 3. 2. 14, 3. 2. 31, 3. 2. 44, 3. 2. 52
- Counseling and Guidance..... 1. 3. 20, 3. 1. 84
- Education..... 1. 3. 06, 2. 1. 13, 3. 1. 92, 3. 2. 31
- Employment and Unemployment..... 1. 1. 23, 1. 1. 46, 1. 2. 01, 1. 2. 04, 3. 2. 31, 3. 2. 44, 3. 2. 52
- Jobseeking..... 1. 1. 46, 1. 2. 04
- Opportunities, Perception of..... 1. 3. 20
- Rural..... 1. 1. 46
- School-to-Work Transition..... 1. 1. 13, 1. 1. 23, 1. 1. 46, 1. 2. 04, 1. 3. 20, 1. 3. 46, 2. 3. 06
- Training and Retraining..... 1. 1. 23

Negroes (See also Minority Groups)

- Apprenticeship..... 3. 1. 83
- Civil Disorders, Participants..... 1. 1. 58, 2. 1. 01
- Comparative Studies (See White-Nonwhite Comparisons)
- Consumer Behavior..... 1. 2. 06
- Dialect Remediation..... 2. 1. 18
- Discrimination (See Discrimination)
- Domestics..... 1. 3. 36, 1. 4. 41, 2. 3. 08

CODE NUMBER

Negroes—Continued

- Education (See Negro Youth, Education)
- Employment and Unemployment..... 1.1.13, 1. 1. 26, 1. 1. 43, 1. 1. 44, 1. 1. 46, 1. 2. 01, 1. 2. 04, 1. 2. 06, 1. 3. 20, 1. 3. 46, 1. 3. 68, 2. 1. 20, 3. 1. 16
- Farmworkers..... 1. 4. 07, 2. 3. 05
- Integration, Railroad Operating Crafts..... 1. 3. 05
- Jobseeking..... 1. 1. 46, 1. 2. 04
- Labor Force Participation..... 1. 3. 49, 1. 4. 36
- Middle Class..... 3. 1. 21
- Middle-Management Positions..... 1. 2. 01
- Migration (See Negro Migration)
- Occupational Patterns..... 2. 1. 19
- School-to-Work Transition (See Negro Youth, School-to-Work Transition)
- Small Business Proprietorship..... 1. 3. 06, 2. 3. 09
- Social Mobility..... 1. 3. 06
- Supervisors, Perception of..... 1. 5. 11
- Training and Retraining..... 1. 1. 66, 1. 2. 01
- White Coworkers, Attitudes..... 1. 3. 05
- Youth (See Negro Youth)
- Neighborhood Youth Corps
 - Effectiveness..... 1. 5. 02, 1. 5. 04, 1. 5. 08, 2. 1. 04
 - Enrollees, Needs and Characteristics..... 1.1.57, 1. 5. 02, 1. 5. 06, 1. 5. 14, 3. 2. 05
 - Group Counseling..... 1. 5. 01, 1. 5. 04
 - Job Supervisor's Role..... 1. 5. 03
 - Posttraining Adjustment..... 1. 5. 04
 - Recruitment..... 1. 5. 14
 - Rural Youth..... 1. 5. 12
 - Work Experience, Transition to Work..... 1. 5. 15
 - Year-Round vs. Summer Programs..... 1. 5. 08
- New Careers Program..... 1. 5. 07, 1. 5. 16
- New Manpower Researchers, Conference..... 2. 1. 12
- New Workers (See also Entry-Level Jobs; Youth, School-to-Work Transition)
 - Attitudes..... 1. 3. 20, 1. 4. 01, 2. 2. 01
 - College Graduates (See College Graduates)
 - Hiring Standards and Practices..... 1. 1. 06, 1. 3. 22
 - Inexperienced vs. Experienced..... 1. 3. 22
 - Performance..... 3. 1. 50
 - Unemployment Rates, International Comparison..... 1. 4. 35
 - White-Nonwhite Comparisons..... 1.2.04, 1. 3. 20, 1. 3. 46, 2. 3. 06
- Niagara Frontier..... 1. 5. 10
- Nonworkers' Attitudes..... 1. 3. 73
- North Carolina..... 1. 2. 04
- Northeast..... 1. 1. 51
- Nuclear Industry, Scientific and Managerial Manpower..... 3. 1. 20
- Nurses (See also Health Services)
 - Aides..... 1. 3. 15
 - Labor Force Behavior..... 1. 2. 02
 - Labor Supply and Demand..... 1. 2. 02, 1. 3. 77
 - Manpower Utilization..... 1. 1. 12
 - Practical..... 1. 3. 15
 - Recruitment..... 1. 1. 25
 - Training..... 1. 1. 25, 1. 3. 15

O

CODE NUMBER

Occupational Choice

- Blind Workers..... 1. 4. 05
- College Students..... 1. 1. 59, 1. 3. 31, 2. 2. 04
- Counseling (See Counseling and Guidance)
- Engineers..... 1. 3. 57
- Ghetto Residents..... 1. 4. 23
- Professional Occupations..... 1. 3. 04, 1. 4. 18
- Social Class Differences..... 1. 3. 31
- Technological Change, Effect..... 1. 1. 35
- Tool and Die Makers..... 1. 1. 48
- Training, Factor in..... 2. 3. 10

Occupational Classification (See Job Content, Occupational Classification)

Occupational Information (See Employment Services)

Occupational Licensing, Effect..... 1. 1. 33, 2. 3. 01

Occupational Mobility (See also Labor Mobility;

- Mobility; Social Mobility)..... 1. 3. 32, 1. 3. 58
- Adult Education..... 1. 3. 13
- American Indians..... 1. 3. 43
- Behavioral Factors..... 1. 5. 06
- Blue- to White-Collar..... 3. 1. 89
- Disadvantaged Workers..... 2. 1. 16
- Economic Opportunity, Perception..... 2. 2. 06
- Education, Effect..... 1. 3. 13, 1. 3. 25, 1. 3. 52, 1. 4. 39, 2. 2. 08, 2. 3. 10
- Licensing Requirements, Effect..... 1. 1. 33, 2. 3. 01
- Long-Term Unemployed..... 1. 4. 15
- Minority Groups..... 1. 4. 06
- Supervisors, Managers..... 2. 2. 08
- Women Workers..... 1. 4. 06

Occupational Patterns

- Counseling and Guidance, Effect..... 1. 4. 32
- Health Technicians..... 1. 3. 18
- Negroes..... 2. 1. 19
- Physicians..... 1. 3. 02
- Projections..... 2. 1. 07, 3. 1. 15
- Scientists and Engineers..... 1. 3. 57, 1. 4. 27, 1. 4. 28
- Sex Differences (See also Occupational Patterns, Women Workers)..... 1. 3. 03, 1. 4. 38
- Social Workers..... 1. 3. 45
- White-Nonwhite Comparison..... 1. 3. 68
- Women Workers..... 1. 3. 02, 1. 3. 03, 1. 3. 18, 1. 3. 45, 1. 4. 06, 1. 4. 18, 1. 4. 27, 1. 4. 38

Occupational Prestige..... 1. 3. 25, 1. 4. 06

Occupations

- Agriculture (See Farmworkers)
- Choice (See Occupational Choice)
- Classification (See Job Content, Occupational Classification)
- Clerical..... 2. 2. 01
- Counseling and Guidance..... 3. 1. 51
- Domestic Service..... 1. 3. 36, 1. 4. 41, 2. 3. 08
- "Elite" Occupations..... 1. 4. 06
- Engineers (See Engineers)
- Environmental Health Manpower..... 1. 2. 06
- Government, Local.. 1. 1. 14, 1. 5. 09, 2. 1. 03, 3. 1. 13
- Health (See Health Services)

CODE NUMBER

Occupations—Continued

Information (See Information Services; Employment Services)

- Law..... 1. 4. 06
- Law Enforcement..... 2. 3. 12
- Library and Information Sciences..... 3. 2. 18
- Licensing (See Licensing, Occupational)
- Maintenance Workers..... 2. 1. 05, 3. 1. 29
- Maritime Industry..... 1. 3. 21, 2. 2. 02, 2. 2. 12
- Mobility (See Occupational Mobility)
- Occupational Groups, Size and Characteristics..... 1. 1. 10, 1. 1. 62
- Patterns (See Occupational Patterns)
- Professional (See Professional Occupations)
- Projections..... 2. 1. 07
- Railroad Operating Crafts..... 1. 3. 05
- Scientists (See Scientists)
- Self-Employment (See Self-Employment)
- Shortage (See Shortage Occupations)
- Sociological Aspects..... 3. 1. 88
- Teachers (See Public School Teachers; College Teachers, Placement)
- Technicians (See Technicians)
- Tool and Die Makers..... 1. 1. 25, 1. 1. 48
- Training, Relation to..... 2. 3. 10
- Unskilled Workers..... 3. 2. 21, 3. 2. 32
- Wage Differentials..... 1. 3. 30, 1. 3. 33

Offenders (See Crime and Offenders)

Oklahoma..... 1. 2. 05

Older Workers (See also Age-Group Comparisons)

- Job Placement..... 1. 4. 31
- Job Redesign..... 3. 1. 42
- Labor Force Participation... 1. 1. 12, 1. 1. 49, 1. 2. 02
- On-the-Job Training..... 1. 2. 02
- Retirement (See Retirement)
- Training and Retraining..... 1. 1. 44, 1. 1. 49, 1. 3. 34, 1. 4. 31

Women..... 1. 1. 69, 3. 1. 01

Work Therapy, European..... 3. 1. 47

- On-the-Job Training..... 1. 4. 11, 1. 5. 10
- Attitudes, Supervisors and Trainees..... 1. 5. 10
- Clerical Occupations..... 2. 2. 01
- Cost-Benefit Analyses..... 1. 1. 54, 1. 3. 59
- European Practice..... 1. 1. 28, 2. 1. 09
- Job Performance..... 1. 5. 10
- Older Workers..... 1. 2. 02
- Orientation..... 1. 1. 66
- Trainee Wage Rates..... 1. 1. 28, 2. 1. 09

Organisation for Economic Co-operation and

Development..... 1. 4. 13

Orientals (See Chinese and Japanese Americans)

Ozarks, The..... 1. 2. 05, 2. 1. 15

P

Paraprofessionals (See Technicians)

Parolees (See also Crime and Offenders)..... 1. 1. 29

Part-Time Employment (See also Seasonal

Employment; Underemployment)..... 1. 1. 44

Pennsylvania..... 1. 2. 06, 1. 4. 12

	CODE NUMBER
Pensions (See also Retirement)	
European.....	2. 1. 06
Mobility, Effect.....	2. 2. 02, 3. 1. 38
Physicians (See also Health Services)	
Psychiatrists, Training.....	1. 3. 04
Women, Utilization.....	1. 1. 71, 1. 3. 02
Police	
Collective Bargaining.....	1. 2. 06
Training Needs.....	2. 3. 12
Population	
Child Spacing.....	3. 1. 11
Labor Reserve.....	3. 1. 12
Occupational Groups, Size.....	1. 1. 10
Projections, State.....	1. 4. 25
Poverty Areas (See Ghetto Areas)	
Poverty, Culture of	
Escape from.....	1. 3. 41
Validity of Concept.....	1. 3. 65
Poverty Groups (See Low-Income Groups)	
Price Stability, Relationship to Unemployment....	1. 3. 07
Producer Services	3. 1. 19
Productivity	
Coal Mining.....	1. 4. 10
Dairy Workers.....	2. 3. 04
Farmworkers.....	1. 4. 29, 2. 3. 04
Scientists and Engineers.....	1. 4. 28
Women Workers.....	1. 4. 06, 1. 4. 38
Workmen's Compensation Insurance Underwriters	1. 4. 22
Professional Occupations (See also individual entries for specific occupations)	
Education for, International Comparison....	1. 3. 54
Employment Discrimination.....	1. 4. 06
Labor Supply and Demand.....	2. 2. 04
Occupational Choice.....	1. 3. 04, 1. 4. 18, 2. 2. 04
Professionalism.....	2. 3. 11
Supporting Personnel	3. 1. 04, 3. 1. 70
Women Workers.....	1. 1. 71, 1. 3. 02, 1. 3. 03, 1. 3. 45, 1. 4. 06, 1. 4. 18, 1. 4. 27
Projections (See also Methodology)	
Accuracy.....	2. 3. 02, 2. 3. 03
Area Skill Surveys.....	1. 3. 70
Banking Industry.....	1. 2. 06
Child Day Care, National Needs.....	1. 1. 44
Conference on Long-Term.....	3. 1. 09
Construction Industry, Demand.....	1. 4. 03
Employment, Railroads.....	2. 3. 03
Employment, Small Areas.....	3. 1. 81
Entry-Level Jobs, Demand.....	1. 3. 14
Firm, in the.....	1. 4. 20
Labor Force, in general.....	3. 1. 53
Methodology.....	1. 1. 55, 1. 3. 14, 1. 4. 21, 2. 3. 02, 2. 3. 03, 3. 1. 15
Metropolitan Areas.....	2. 3. 02
National Goals and Priorities	1. 1. 43, 1. 1. 44, 2. 1. 14
Occupations.....	1. 2. 02, 2. 1. 07, 3. 1. 15
Population, State.....	1. 4. 25
Scientists and Engineers.....	1. 1. 22
Technicians, Demand.....	1. 1. 22, 3. 1. 26
Technological Change, Rate.....	1. 4. 25
Unemployment.....	3. 1. 45

	CODE NUMBER
Promotion	
Steel Industry.....	1. 3. 58
Supervisors, Managers.....	1. 1. 24, 2. 2. 08
Psychiatrists.....	1. 1. 12, 1. 3. 04
Public Assistance (See also Social Work)	
Aid to Families with Dependent Children....	1. 3. 19
Handicapped Workers.....	1. 1. 18
Labor Force Participation.....	1. 3. 19
Negro Migration, Effect on.....	1. 3. 38
Projections, National.....	1. 1. 44
Recipients, Employment Incentives for.....	3. 2. 50
Public Law 78.....	1. 3. 11, 1. 3. 42
Public School Teachers	
Aides.....	1. 1. 70
Collective Bargaining.....	1. 2. 06
Job Satisfaction.....	1. 3. 16
Jobseeking.....	1. 3. 32
Migration.....	1. 3. 32
Shortage Occupations.....	1. 3. 16
Puerto Ricans (See also Minority Groups)	
Consumer Behavior.....	1. 2. 06
Employment Discrimination.....	2. 1. 20
Mentally Retarded.....	1. 1. 01
Youth, Counseling and Guidance.....	2. 3. 07

R

Railroad Industry	
Operating Crafts, Integration.....	1. 3. 05
Projections, Employment.....	2. 3. 03
Recruitment (See also Employment Services; Hiring Standards and Practices)	
Agricultural Technicians.....	1. 1. 61
Engineering Technicians.....	1. 1. 25
Health Manpower.....	1. 1. 25, 1. 3. 18
Industrial, Small City Job Markets.....	1. 3. 01
Long-Term Unemployed.....	1. 5. 05
Maintenance Workers, Automated Plants, European.....	2. 1. 05
Patterns of Managers.....	1. 2. 03
Tool and Die Makers.....	1. 1. 25
Redundancy, International Comparison.....	2. 1. 06
Regional and Area Studies (Studies of specific geographic areas)	
Appalachia.....	1. 3. 26, 1. 4. 39
Atlanta, Ga.....	1. 2. 01
Boston, Mass.....	1. 4. 08
California.....	1. 3. 11, 1. 3. 14, 1. 4. 33
Cleveland, Ohio.....	1. 1. 04, 1. 4. 39
Denver, Colo.....	3. 1. 15
Iowa.....	1. 2. 02
Maine.....	1. 2. 03
Miami, Fla.....	1. 3. 60
Michigan.....	1. 3. 42, 3. 1. 66
Mississippi.....	1. 4. 12, 1. 4. 35
Niagara Frontier.....	1. 5. 10
North Carolina.....	1. 2. 04
Northeast.....	1. 1. 51
Oklahoma.....	1. 2. 05
Ozarks, The.....	1. 2. 05, 2. 1. 15
Pennsylvania.....	1. 2. 06, 1. 4. 12
San Francisco, Calif.....	1. 1. 06

CODE NUMBER

- Regional and Area Studies—Continued
 Seattle, Wash. 1. 3. 67
 South, The (See South, The)
 Tidewater, Va. 1. 2. 07
 Washington, D.C. 1. 3. 36
 Regional Planning and Development . . . 1. 1. 12, 1. 1. 27
 Relocation, Plant 1. 1. 07
 Remedial Education
 Dialect Remediation 2. 1. 18
 Neighborhood Youth Corps 1. 5. 01
 Research (See Manpower Research)
 Research and Development (See also Engineers;
 Professional Occupations; Scientists)
 Impact on Capital and Labor Needs . . . 1. 1. 22
 Research Priorities. 1. 1. 41, 1. 1. 43, 1. 1. 44, 2. 1. 14
 Residential Change (See Commuting; Migration)
 Retail Trade Industry (See also Small Business)
 Labor Supply and Demand 1. 3. 52, 1. 3. 72
 Personal Factors, Owners and Managers . . 1. 3. 72
 Retarded Workers (See Mentally Retarded, Em-
 ployment Assistance)
 Retirement (See also Pensions)
 Early Retirement 1. 3. 09, 3. 1. 38
 Fund Administration 1. 2. 04
 Labor Force Participation, Retirees . . . 3. 2. 43
 Military Personnel, Former, Employment . . 3. 1. 06
 Minimum Wage, Effect 1. 3. 09
 Retraining (See Training and Retraining)
 Riots (See Civil Disorders)
 Rural Areas (See also Farmworkers)
 Industrial Recruitment 1. 3. 01
 Labor Force Participation 2. 1. 15
 Migration (See Migration, Rural-Urban)
 Neighborhood Youth Corps 1. 5. 12
 Vocational Education 3. 2. 41
 Youth 1. 1. 46, 1. 5. 12, 3. 1. 55

S

- San Francisco, Calif. 1. 1. 06
 School-to-Work Transition (See Youth; Negro
 Youth; International Manpower Studies)
 Scientists (See also Engineers; Professional
 Occupations)
 Aerospace Industry 3. 1. 74
 Attitudes 1. 3. 39
 Demand 1. 1. 22
 Job Obsolescence 1. 3. 08, 3. 1. 18
 Job Satisfaction 1. 4. 28
 Layoffs 1. 3. 08, 3. 1. 74
 Occupational Patterns 1. 3. 57, 1. 4. 27, 1. 4. 28
 Professionalism 2. 3. 11
 Projections 1. 1. 22
 Retraining 3. 1. 18
 Unemployment and Reemployment . . 1. 3. 08, 3. 1. 74
 Women 1. 4. 27
 Seasonal Employment (See also Underemploy-
 ment; Part-Time Employment)
 Citrus Fruit Industry 1. 1. 17
 Construction Industry 1. 1. 21, 2. 2. 05
 Seattle, Wash. 1. 3. 67

CODE NUMBER

- Selective Service Rejectees, Characteristics . . . 3. 1. 71,
 3. 1. 72
 Self-Employment (See Small Business; Retail
 Trade Industry)
 Service Industries 1. 3. 14, 1. 3. 72
 Severance Pay, Effect on Mobility 3. 1. 37
 Shortage Occupations (See also Labor Shortages;
 individual entries for specific occupations) . . 1. 1. 39,
 1. 3. 23
 Agricultural Technicians 1. 1. 61
 Construction 1. 1. 21, 1. 3. 23
 Engineering Technicians 1. 1. 25
 Hiring Standards and Practices 1. 1. 19, 1. 1. 25
 Job Placement 1. 1. 25
 Licensing, Effect 1. 1. 33, 2. 3. 01
 Medical Technicians. 1. 1. 12, 1. 1. 25, 1. 1. 47, 1. 4. 24
 Nurses 1. 1. 12, 1. 1. 25, 1. 3. 77
 Physicians 1. 1. 12
 Production and Maintenance Workers . . . 1. 1. 19
 Public School Teachers 1. 3. 16
 Recruitment 1. 1. 25, 1. 1. 61, 1. 3. 18
 Tool and Die Makers 1. 1. 25, 1. 1. 48
 Training 1. 1. 25, 1. 5. 09
 Skill Requirements (See also Job Content)
 Aircraft Industry 1. 1. 08
 Area Skill Surveys 1. 3. 70
 Automated Jobs 1. 3. 10, 3. 1. 31
 Automated vs. Nonautomated Jobs 1. 1. 08
 Changing Requirements 1. 1. 05,
 1. 1. 08, 1. 4. 03, 1. 4. 10, 2. 1. 07, 3. 1. 07
 Coal Mining 1. 4. 10
 Construction Industry 1. 4. 03
 Engineering Information Personnel 3. 1. 04
 Law Enforcement and Correctional Officers . . 2. 3. 12
 Projections by Occupation 2. 1. 07
 Research and Development, Effect on . . . 1. 1. 22
 Supervisors, Managers 1. 1. 24, 1. 3. 10
 Tariff Protection, Relation to 1. 2. 04
 Technicians 1. 1. 17, 1. 1. 47
 Technological Change, Effect on 1. 1. 05,
 1. 1. 08, 1. 1. 17, 1. 1. 24, 1. 4. 10, 2. 1. 07, 3. 1. 07
 Tool and Die Makers 1. 1. 48
 Vocational Education 1. 1. 03
 Skill Utilization (See Manpower Utilization;
 Underemployment)
 Small Business (See also Retail Trade Industry)
 Commercial Lending, Discrimination 2. 3. 09
 Ex-Offenders 1. 4. 30
 Minority Groups 1. 3. 06, 2. 3. 09
 Personal Factors, Owner-Managers 1. 3. 72
 Social Mobility 1. 3. 06
 Training, Participation in 1. 2. 01
 Social Class and Status (See also Social Mobility)
 Aspirations, Class Differences 1. 3. 31
 Economic Mobility, Transmission of 1. 3. 40
 Ideology of 2. 2. 06
 Marginal Status 1. 3. 18
 Negro, Middle Class 3. 1. 21
 Social Mobility (See also Mobility; Social Class
 and Status)
 Domestic 1. 4. 41

CODE NUMBER

- Social Mobility—Continued**
 Low-Income Groups..... 1. 3. 41
 Minority Groups..... 1. 3. 06, 1. 4. 06
 Self-Employment vs. Education..... 1. 3. 06
 Social Organization, Farmworkers, Migratory.... 1.4.07,
 3. 2. 09
**Social Work (See also Counseling and Guidance;
 Public Assistance)**
 Aides..... 1. 1. 70
 Long-Term Unemployed, Assistance For..... 1. 1. 53
 Occupational Patterns..... 1. 3. 45
 Students, Attitudes and Motivation..... 1. 3. 50
 Volunteer Work, Extent..... 2. 1. 08
 Women, Employment Opportunities..... 1. 1. 70
South, The
 Employment in..... 1. 1. 26, 1. 2. 01
 Out-Migrants..... 1. 1. 04,
 1. 3. 25, 1. 3. 26, 1. 4. 39, 3. 2. 04
**Spanish Surname, Persons of (See also Mexican
 and Mexican American Workers; Puerto Ricans;
 Cuban Refugees; Minority Groups)**..... 1. 3. 61
Speech, Dialect Remediation..... 2. 1. 18
**Standard Metropolitan Statistical Areas, Valida-
 tion**..... 1. 4. 09
State Development Commissions..... 1. 1. 12
**State Employment Services (See Employment
 Services)**
State Government Employees..... 1. 1. 11
State Manpower Projections..... 1. 4. 25
Statistical Methods and Studies (See Methodology)
Steel Industry
 Labor Supply and Demand..... 1. 3. 58
 Manpower Planning..... 1. 1. 12
 Technological Change..... 1. 1. 12, 3. 1. 07
Stratification (See Social Class and Status)
**Students (See Youth; College Students; Dropouts,
 High School)**
Subprofessional Occupations (See Technicians)
Subsidized Employment..... 1. 1. 12, 1. 1. 18, 1. 1. 44
Supervisors, Managers
 Attitudes toward Training..... 1.1.66,
 1. 2. 03, 1. 3. 64, 1. 4. 08, 1. 5. 10
 Development and Utilization. 1. 1. 24, 1. 3. 10, 2. 2. 08
 Education and Training Background..... 1.1.24,
 1. 3. 54, 2. 2. 08
 Mobility..... 2. 2. 08
 Negro Perceptions of Supervisors.... 1. 1. 66, 1. 5. 11
 Negroes in Middle-Management Positions... 1. 2. 01
 Personal Factors, Owners and Managers..... 1. 3. 72
 Recruitment Patterns of..... 1. 2. 03
 Technological Change, Adjustment.. 1. 1. 24, 1. 3. 10
Supplemental Unemployment Benefits..... 2. 1. 02
Systems Analysis..... 1. 1. 55, 1. 1. 60

T

- Tariff Protection**..... 1. 2. 04
Teacher Aides..... 1. 1. 70
**Teachers (See Public School Teachers; College
 Teachers)**

CODE NUMBER

- Technical Education (See Vocational Education;
 Education)**
Technicians
 Agricultural..... 1. 1. 61
 Demand, Projections..... 1. 1. 22, 3. 1. 26
 Electromechanical..... 1. 2. 05
 Engineering..... 1. 1. 25
 International Comparison..... 1. 3. 54
 Medical..... 1. 1. 12,
 1. 1. 25, 1. 1. 47, 1. 3. 15, 1. 3. 18, 1. 4. 24
 Recruitment..... 1. 1. 25, 1. 1. 61, 1. 3. 18
 Skill Requirements..... 1. 1. 17, 1. 1. 47
 Women..... 1. 1. 70, 1. 3. 18
Technological Change..... 3. 1. 23, 3. 2. 26
 Aerospace Industry..... 3. 1. 07
 Apprenticeship..... 1. 1. 56
 Aspiration, Career..... 1. 1. 35
 Automated vs. Nonautomated Jobs.. 1. 1. 08, 2. 2. 07
 Banking Industry..... 3. 1. 07
 Blue-Collar..... 1. 3. 73, 1. 4. 10
 Coal Mining..... 1. 4. 10
 Foundries Industry..... 3. 1. 65
 Health and Safety Aspects..... 3. 1. 32
 Hiring Standards and Practices..... 1. 1. 08
 International Manpower Studies..... 2. 1. 05,
 2. 1. 06, 3. 1. 32
 Job Content.. 1. 1. 05, 1. 1. 08, 1. 1. 35, 2. 2. 07, 3. 1. 07
 Job Satisfaction..... 1. 1. 08, 2. 2. 07
 Joint Management-Union Committees..... 2. 2. 14
 Labor Unions..... 1. 4. 26
 Maintenance Workers..... 2. 1. 05, 3. 1. 29
 Management Decisions..... 3. 1. 76
 Management Skills..... 1. 1. 24, 1. 3. 10
 Man-Machine Relationship..... 2. 2. 07
 Occupational Choice..... 1. 1. 35
 Planning and Preparation..... 1. 1. 12,
 1. 4. 10, 1. 4. 25, 2. 2. 14
 Potential, Analysis of..... 3. 1. 03
 Rate of Change, Projection..... 1. 4. 25
 Skill Requirements..... 1. 1. 05,
 1. 1. 08, 1. 1. 17, 1. 1. 24, 1. 3. 10, 1. 4. 10, 2. 1. 07,
 3. 1. 07
 Social Aspects..... 1. 3. 08, 3. 1. 32
 Steel Industry..... 1. 1. 12, 3. 1. 07
 Warehousing..... 3. 1. 79
Teenagers (See Youth)
Theoretical Models (See also Methodology)
 Employment Opportunity Matrix..... 1. 1. 12
 Employment, Small Areas..... 3. 1. 81
 Health Manpower Requirements..... 1. 2. 02
 Input-Output, State Manpower..... 1. 4. 25
 Job Vacancies..... 1. 1. 40
 Labor Force, Job Market..... 1. 1. 12,
 1. 1. 55, 1. 1. 60, 1. 3. 24, 1. 4. 21, 1. 4. 25
 Occupational Information System..... 1. 1. 16,
 1. 2. 05
 Scientists and Engineers, Demand..... 1. 1. 22
 Systems Analysis..... 1. 1. 55, 1. 1. 60
 Wage, Local Labor Market..... 1. 3. 30
 Working Life..... 1. 4. 21
 Tidewater, Va..... 1. 2. 07

- CODE NUMBER
- Tool and Die Makers..... 1. 1. 25, 1. 1. 48
- Trade Unions (See Labor Unions)
- Training and Retraining (See also Manpower Development Programs; Vocational Education) 3. 1. 39, 3. 1. 46, 3. 1. 73
- Adult vs. Youth..... 1. 3. 34
- Allowances, Adequacy..... 1. 1. 34
- American Indians..... 1. 3. 43, 2. 2. 09
- Apprenticeship (See Apprenticeship)
- Attitudes, Trainee..... 1. 1. 34, 1. 1. 64, 1. 4. 15, 1. 4. 34, 1. 5. 05, 1. 5. 07, 1. 5. 10, 1. 5. 13, 2. 2. 01
- Bibliography, Retraining..... 3. 1. 49
- Clerical Occupations..... 2. 2. 01
- Coal Industry..... 1. 4. 10
- Correctional Institutions..... 1. 1. 29, 3. 1. 80
- Cost-Benefit Analyses..... 1. 1. 30, 1. 1. 54, 1. 3. 15, 1. 3. 34, 1. 3. 59, 1. 3. 71, 1. 3. 76, 1. 4. 14, 2. 2. 09
- Counseling (See Counseling and Guidance)
- Decision to Participate. 1. 4. 15, 1. 4. 23, 1. 4. 34, 3. 1. 87
- Dialect Remediation..... 2. 1. 18
- Effectiveness (See Training and Retraining, Cost-Benefit Analyses and Posttraining entries)
- Employer Sponsored..... 1. 1. 06, 1. 3. 48, 1. 3. 64, 1. 4. 11, 1. 5. 05, 2. 2. 01
- Engineers..... 1. 3. 47, 3. 1. 18
- Ex-Offenders..... 1. 1. 29
- Ghetto Residents..... 1. 3. 59, 1. 3. 64, 1. 5. 09
- Government, Local..... 1. 5. 09
- International Manpower Studies..... 1. 1. 28, 1. 3. 66, 1. 3. 75, 2. 1. 05, 2. 1. 06, 2. 1. 09, 3. 1. 08, 3. 1. 43, 3. 1. 58
- Labor Union Sponsored..... 1. 3. 21, 2. 2. 02
- Law Enforcement and Correctional Officers.. 2. 3. 12
- Long-Term Unemployed. 1. 1. 53, 1. 4. 15, 1. 5. 05, 2. 3. 13
- Maintenance Workers, Automated Plants, European..... 2. 1. 05
- Management Attitudes (See Supervisors, Managers, Attitudes toward Training)
- Minority Groups..... 1. 1. 23, 1. 1. 66, 1. 2. 01, 1. 3. 43, 2. 1. 21, 2. 2. 09, 3. 1. 92
- Motivation, Trainees..... 1. 1. 64, 3. 1. 73
- National Alliance of Businessmen..... 1. 2. 01
- National Training Needs, Projections..... 1. 1. 44
- Neighborhood Youth Corps (See Neighborhood Youth Corps)
- New Careers Program..... 1. 5. 07
- Occupation, Relation to..... 2. 3. 10
- Older Workers..... 1. 1. 44, 1. 3. 34, 1. 4. 31
- On-the-Job Training (See On-the-Job Training)
- Posttraining Attitudes..... 1. 1. 34, 1. 5. 05, 2. 2. 01
- Posttraining Employment and Unemployment. 1. 1. 29, 1. 1. 30, 1. 1. 34, 1. 1. 53, 1. 2. 01, 1. 3. 15, 1. 3. 21, 1. 3. 34, 1. 3. 43, 1. 3. 48, 1. 3. 53, 1. 3. 59, 1. 3. 64, 1. 3. 67, 1. 3. 71, 1. 3. 74, 1. 4. 08, 1. 4. 11, 1. 4. 14, 1. 5. 15, 2. 1. 11, 2. 2. 09, 2. 3. 13, 3. 1. 02, 3. 1. 08, 3. 1. 49, 3. 1. 73, 3. 1. 87
- Posttraining Income..... 1. 1. 54, 1. 1. 64, 1. 2. 01, 1. 3. 75, 1. 3. 76, 1. 4. 14, 2. 1. 11, 2. 2. 09

- CODE NUMBER
- Training and Retraining—Continued
- Posttraining Orientation..... 1. 1. 66
- Pretraining Services..... 1. 1. 53
- Psychiatrists..... 1. 1. 12, 1. 3. 04
- Public vs. Private..... 1. 3. 64, 1. 4. 11
- Scientists..... 3. 1. 18
- Sex Differences..... 1. 3. 74
- Shortage Occupations..... 1. 1. 25, 1. 1. 48, 1. 5. 09
- Skilled Workers..... 2. 1. 05, 3. 1. 77
- Social-Psychological Factors..... 1. 5. 07, 2. 3. 13
- Women, Training Needs..... 1. 1. 69
- Youth (See also Neighborhood Youth Corps; Youth Opportunity Centers)..... 1. 1. 23, 1. 3. 34, 1. 3. 67, 1. 4. 17, 3. 1. 78, 3. 1. 80
- Training Camps for Unemployed Youth..... 3. 1. 78
- Training Needs Surveys..... 1. 3. 70
- Transportation, Mass (See also Commuting).... 1. 1. 63
- U
- Underemployment (See also Seasonal Employment; Manpower Utilization)
- Disadvantaged Workers..... 1. 2. 07, 1. 5. 09
- Identification of the Underemployed..... 3. 2. 13
- Low Wage Employment..... 3. 2. 20, 3. 2. 27
- Migration, Factor..... 1. 2. 03
- Part-Time Employment, Extent..... 1. 1. 44
- Unemployed, Unemployment, Unemployment Rates (See also Employment; Underemployment; Long-Term Unemployed; Labor Force Participation)
- Characteristics..... 1. 1. 49, 1. 1. 53, 1. 4. 15, 1. 4. 34, 1. 4. 36, 2. 2. 11, 3. 2. 13
- Concentrated Employment Program (See Concentrated Employment Program)
- Concurrent Labor Shortages..... 1. 1. 25, 1. 5. 09
- Construction Industry..... 1. 1. 21, 2. 2. 05
- Disadvantaged Workers..... 1. 5. 09
- Engineers..... 1. 3. 08, 3. 1. 74
- Ghetto Areas..... 1. 3. 56, 1. 4. 08, 1. 4. 36, 1. 5. 09, 3. 1. 44, 3. 2. 13
- Immigrants..... 1. 4. 35
- Income Distribution..... 1. 3. 29
- International Manpower Studies..... 1. 3. 07, 1. 3. 75, 1. 4. 35, 2. 1. 06
- Labor Unions..... 1. 4. 26
- Negroes..... 1. 1. 23, 1. 1. 46, 1. 2. 04
- Nonworkers (See Labor Force, Nonparticipants)
- Posttraining (See Training and Retraining, Posttraining Employment and Unemployment)
- Price Stability, Relationship to..... 1. 3. 07
- Projections..... 3. 1. 45
- Redundancy, Cause of..... 2. 1. 06
- Rural..... 1. 1. 46
- School-to-Work Transition (See Youth, School-to-Work Transition)
- Scientists..... 1. 3. 08, 3. 1. 74
- Training (See Training and Retraining)

CODE NUMBER

- Unemployed, Unemployment, Unemployment
Rates—Continued
Unemployment Rate, Commuting as Factor
in Equalizing..... 1. 4. 09
Youth..... 1. 1. 23,
1. 1. 37, 1. 1. 38, 1. 1. 46, 1. 2. 04, 1. 3. 37, 1. 4. 35
Unemployment Insurance
Supplemental Unemployment Benefits..... 2. 1. 02
Wage Reports..... 1. 4. 14
Unions (See Labor Unions)
Unskilled Workers..... 3. 2. 32
Labor Supply and Demand..... 3. 2. 21
Urban Development Agencies, Interrelationships.. 1. 1. 14
Urban Institute, The..... 1. 1. 63

V

- Veterans (See Military Personnel, Former)
Vocational Education (See also Training and
Retraining)
American Indians..... 1. 2. 05, 2. 2. 09
Apprenticeship, Related Instruction.. 2. 1. 21, 2. 2. 13
Clerical..... 2. 2. 01
Community Colleges..... 1. 2. 04
Cost-Benefit Analyses..... 1. 4. 14, 3. 1. 62
Curriculum..... 1. 1. 03, 1. 1. 16, 2. 2. 13, 3. 1. 56
Dropouts, Preventive Teaching..... 1. 3. 69
Effectiveness..... 1. 3. 20,
1. 3. 48, 1. 4. 14, 3. 1. 50, 3. 1. 62, 3. 1. 64
Employment Agencies, Relationship.. 1. 1. 07, 1. 1. 16
International Comparison..... 2. 1. 09
Rural Manpower..... 3. 2. 41
Statewide System..... 1. 2. 05, 1. 4. 25
Volunteer Work, Extent..... 2. 1. 08

W

- Wages (See Earnings, Income, Wages)
Warehousing..... 3. 1. 79
Washington, D.C..... 1. 3. 36
Welfare (See Public Assistance)
White-Collar Employment (See also Occupations;
Professional Occupations)
Blue-to-White Collar..... 3. 1. 89
Projections..... 2. 1. 07
White-Nonwhite Comparisons
Attitudes toward Work..... 1. 1. 23, 1. 5. 11
Blind Workers..... 1. 4. 05
College Graduates..... 2. 1. 13, 3. 2. 31
Commercial Lending..... 2. 3. 09
Consumer Problems..... 1. 2. 06
Entry-Level Jobs..... 1. 1. 23, 1. 3. 20, 1. 3. 46
Jobseeking Methods..... 1. 1. 23,
1. 2. 04, 1. 3. 20, 1. 3. 46, 2. 3. 06
Labor Force Participation, White vs. Ameri-
can Indian..... 1. 3. 43
Middle Class Negro..... 3. 1. 21
Occupational Distribution..... 1. 3. 68
School-to-Work Transition..... 1. 1. 23,
1. 3. 20, 1. 3. 46, 2. 3. 06

CODE NUMBER

- Women Workers (See also Marriage and Family;
Working Mothers)
Attitudes..... 1. 3. 03, 1. 4. 27, 1. 4. 38, 2. 2. 01
Counseling, Girls..... 3. 1. 93, 3. 1. 94
Counseling, Mature Women.. 1. 1. 66, 1. 1. 69, 3. 1. 01
Employment Opportunities.. 1. 1. 70, 1. 4. 06, 3. 1. 57
Labor Force Participation..... 1. 1. 09,
1. 1. 49, 1. 1. 69, 1. 3. 03, 1. 3. 19, 1. 3. 44, 1. 4. 27,
3. 1. 57
Labor Force Reentry..... 1. 1. 69
Marginal Employment..... 1. 1. 12, 1. 3. 18
Nurses (See Nurses)
Occupational Patterns..... 1. 3. 02,
1. 3. 03, 1. 3. 18, 1. 3. 45, 1. 4. 06, 1. 4. 18, 1. 4. 27,
1. 4. 38
Older Workers..... 1. 1. 69, 3. 1. 01
Physicians..... 1. 1. 71, 1. 3. 02
Productivity..... 1. 4. 06, 1. 4. 38
Professional Occupations..... 1. 1. 71,
1. 3. 02, 1. 3. 03, 1. 3. 45, 1. 4. 06, 1. 4. 18, 1. 4. 27
Technicians..... 1. 1. 70, 1. 3. 18
Trainees..... 1. 3. 74
Training Needs..... 1. 1. 69
Work Crews, Automated Plant..... 1. 3. 10
Work Experience Program, Neighborhood Youth
Corps..... 1. 5. 15
Worker Attitudes (See Attitudes)
Work Satisfaction (See Job Satisfaction)
Working Conditions
Collective Bargaining, Effect on..... 2. 1. 16
Domestics..... 1. 4. 41, 2. 3. 08
Farmworkers..... 1. 3. 11, 1. 4. 07, 2. 4. 29, 1. 4. 33
Isolated Work Site..... 2. 2. 12
Working Mothers (See also Marriage and Family;
Women Workers)
Child Bearing..... 1. 1. 09, 1. 4. 27
Child Day Care..... 1. 1. 44, 1. 1. 68
Child Spacing..... 3. 1. 11
Working Poor (See also Low-Income Groups).... 3. 2. 27
Workmen's Compensation, Claims Handling..... 1. 4. 22

Y

- Youth (See also Age-Group Comparisons)
Aspirations, Career.. 1. 3. 31, 1. 4. 17, 2. 1. 16, 3. 1. 84
Attitudes toward Work..... 1. 1. 23,
1. 1. 38, 1. 4. 01, 1. 5. 11, 2. 2. 01
Boys Club, Chicago..... 1. 4. 17
College (See College Graduates; College
Students)
Counseling and Guidance..... 1. 1. 12,
1. 3. 20, 1. 4. 17, 2. 3. 07, 3. 1. 84
Dropouts, High School..... 1. 3. 69, 3. 2. 36
Employment and Unemployment..... 1. 1. 12,
1. 1. 23, 1. 1. 37, 1. 1. 38, 1. 1. 46, 1. 2. 01, 1. 2. 04,
1. 3. 37, 1. 4. 35
European..... 1. 1. 12, 1. 1. 28, 1. 4. 35
Job Performance..... 3. 1. 50
Jobseeking..... 1. 1. 23, 1. 1. 38, 1. 1. 46
Juvenile Delinquents..... 1. 3. 46, 1. 4. 17
Labor Force Participation... 1. 1. 12, 1. 1. 13, 1. 2. 04

C. Index of Research Subjects

219

CODE NUMBER	CODE NUMBER
Youth—Continued	
Marginal Employment..... 1. 1. 12	Selective Service Rejectees..... 3. 1. 71, 3. 1. 72
Negro (See Negro Youth)	Southern..... 3. 1. 84
Neighborhood Youth Corps (See Neighborhood Youth Corps)	Training and Retraining..... 1.1.23,
Opportunities, Perception of. 1. 3. 20, 1. 4. 17, 2. 2. 04	1. 3. 34, 1. 3. 67, 1. 4. 17, 3. 1. 78, 3. 1. 80
Rikers Island..... 3. 1. 80	Training Camps..... 3. 1. 78
Rural..... 1. 1. 46, 1. 5. 12, 3. 1. 55	Vocational Education (See Vocational Education)
School-to-Work Transition..... 1.1.12,	Youth Opportunity Centers..... 2. 3. 07
1. 1. 13, 1. 1. 23, 1. 1. 28, 1. 1. 37, 1. 1. 42, 1. 1. 46,	
1. 1. 48, 1. 3. 20, 1. 3. 46, 1. 3. 67, 1. 4. 01, 2. 3. 06	